



JHPIEGO An Affiliate of
Johns Hopkins University
A GLOBAL LEADER IN IMPROVING HEALTH CARE FOR WOMEN AND FAMILIES

behavior change interventions
for safe motherhood:
common problems, unique solutions



The MNH Program Experience

Maternal
& Neonatal
Health



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The Maternal and Neonatal Health (MNH) Program is committed to saving mothers' and newborns' lives by increasing the timely use of key maternal and neonatal health and nutrition practices. The MNH Program is jointly implemented by JHPIEGO, the Johns Hopkins Center for Communication Programs, the Centre for Development and Population Activities, and the Program for Appropriate Technology in Health.
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JHPIEGO, an affiliate of Johns Hopkins University, builds global and local partnerships to enhance the quality of health care services for women and families around the world. JHPIEGO is a global leader in the creation of innovative and effective approaches to developing human resources for health.
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BURKINA FASO

Association Nayolsba of Koupéla
Laguem Zoodo
Mwangaza Action
Plan Burkina
UNICEF
White Ribbon Alliance of Koupéla

GUATEMALA

Local NGOs

Asociación Vivamos Mejor
Red de Salud de Mujeres de Sololá
Consejo Consultivo de Comadronas de Sololá
Arenys Solidaris
Health Committees of: San Marcos, Retalhuleu, Suchitepequez, Solola, Quiché and Quetzaltenano departments (provinces)

International NGOs

Project HOPE
CARE
Save the Children
United Nations Fund for Population Activities (UNFPA)
European Union/PRRAC Project
Mercy Corps
World SHARE

INDONESIA

Ministry of Health of Indonesia
State Ministry of Women Empowerment (Menteri Negara Pemberdayaan Perempuan)
Family Planning Coordination Board of Indonesia
Health Offices of West Java Province, Kuningan District, Cirebon Municipality, and Cirebon District
Chiefs of 55 villages in Kabupaten Cirebon, Kota Cirebon and Kabupaten Kuningan
Midwives in 55 villages in Kabupaten Cirebon, Kota Cirebon and Kabupaten Kuningan
Indonesian Midwife Association of Central Level, West Java Province, District Level of Kabupaten Cirebon, Kota Cirebon, and Kabupaten Kuningan
Hospitals: Gunung Jati, Wijaya Kusuma, Waled
Community Health Center of Plumbon Village
Forum of IMP Facilitators of Kabupaten Cirebon, Kota Cirebon, and Kabupaten Kuningan
Local Newspaper: Radar Cirebon
National Level Newspaper: Kompas, Jakarta Post, Republika, Suara Pembaruan
National TV Stations: RCTI, Indosiar, SCTV, ANTV, TVRI
Local Radio Stations: Radio Republic of Indonesia, Daya Bumi, Leo, Linggar Jati, Maritime, Rasuci, Sindang Kasih
Midwife Academy of Bandung and Cirebon
Discussion Forum of Bandung Journalists (Forum Diskusi Wartawan Bandung)
Persona, Bureau of Psychology, Bandung
Ogilvy Public Relations
Sidikara Foundation (Yayasan Sidikara Bandung)
Inter Matrix Relations Agency
RDP & Associates Research Agency

Jasa Riset Indonesia
Indo Ad Advertising Agency
One Communication Agency
Sanggar Prativi (Recording House)
Indonesia Society for Social Transformation
WHOCC-PMC Research University
Parkit Film (Production House)
Center for Health Research University of Indonesia
Fatayat NU (Islamic Women's Organization)
Creative Center
Association of Private Broadcasting of Indonesia, of Cirebon (PRSSNI Cirebon)
BKMT Kabupaten Cirebon (Women Reciting Qur'an Group)
White Ribbon Alliances of Indonesia, West Java Province, Kabupaten Cirebon, Kota Cirebon, and
Kabupaten Kuningan
Pondok Pesantren Buntet, Cirebon (Islamic Boarding College)
DKM Attaqwa (Board of Attaqwa Mosque)

NEPAL

National Leadership

Family Health Division
Ministry of Health, Department of Health Services
National Health Education, Information and Communication Center
National Health Training Center

District/City Leadership

District Health Office/District Public Health Office of Lalitpur, Baglung and Kailali Districts
Lalitpur Sub-Metropolitan City Council

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ABBREVIATIONS AND ACRONYMS

BCC	Behavior Change Communication
BCI	Behavior Change Interventions
BP/CR	Birth Preparedness/Complication Readiness
BPP	Birth Preparedness Package (Nepal)
CoGes	Community Advisory Group (Burkina Faso)
EMNC	Essential Maternal and Neonatal Care
IEC	Information, Education, Communication
MCHW	Maternal and Child Health Worker (Nepal)
MNH	Maternal and Neonatal Health (Program)
M&E	Monitoring and Evaluation
NGO	Nongovernmental Organization
PQI	Performance and Quality Improvement
SIAGA	Acronym, meaning “alert” (Indonesia)
SMN	Safe Motherhood Network (Nepal)
SUMATA	Acronym, meaning “Care, Share, and Prepare” (Nepal)
TBA	Traditional Birth Attendant (NB: not a skilled attendant)
UNFPA	United Nations Population Fund
UNICEF	United Nations Children’s Fund
USAID	United States Agency for International Development
WHO	World Health Organization
WRA	White Ribbon Alliance
ZWRASM	Zambia White Ribbon Alliance for Safe Motherhood

EXECUTIVE SUMMARY

A woman feels the first pangs of labor and steels herself for the coming birth. Depending on where she lives, what she knows, and how she and others around her understand their roles and responsibilities in the next hours and days, she may give birth to her child safely, comfortably, and with healthy outcomes ...or she may give birth without access to a skilled provider, completely alone even if there is a problem, and potentially with fatal outcomes for herself and her baby.

In each MNH Program country, dedicated healthcare providers and community leaders are committed to tackling these obstacles and reducing the maternal mortality rate.

The Maternal and Neonatal Health (MNH) Program worked with countries throughout the developing world to improve the conditions in which women give birth. The Program's goal was to save mothers' and newborns' lives by increasing the timely use of key maternal and neonatal health interventions. The MNH Program worked toward these improvements through strengthening the enabling environment, improving the clinical skills of healthcare providers, upgrading healthcare facilities, and mobilizing communities to demand and use high-quality obstetric services.

This paper focuses on the MNH Program's work in the area of Behavior Change Interventions (BCI). BCI activities were undertaken in nearly every MNH Program country, and these activities were evaluated through population-based surveys in Burkina Faso, Guatemala, Indonesia, and Nepal. The results of work in these four countries provide a valuable narrative from which constructive lessons can be learned. Each of the four countries confronts high numbers of avoidable maternal deaths. Each has related economic, geographic, and political obstacles to overcome. Yet, in each, dedicated healthcare providers and community leaders are committed to tackling these obstacles and reducing the maternal mortality rate. Working with USAID Missions, government decision-makers, health workers, and community champions in each country, the MNH Program designed BCI activities suited to the local cultures and circumstances.

BCI STRATEGIES AND ACTIVITIES

In the MNH Program, BCI includes behavior change communication (BCC) activities, community and social mobilization, advocacy, and alliance building. The Program's approach is reflected in the Birth Preparedness and Complication Readiness (BP/CR) Matrix, a programming tool that outlines key actions and responsibilities of each actor within the safe motherhood arena—policymakers, healthcare facilities, providers, communities, families, and individual women. The actions that these actors, or stakeholders, can take are listed in separate sections of the BP/CR Matrix that relate to pregnancy, labor and childbirth, and the postpartum/newborn period. The matrix is included at the end of this report.

Throughout the MNH Program, the BP/CR Matrix was an integral tool in both BCC activities and the social mobilization activities supported by the White Ribbon Alliance (WRA). The WRA is a global coalition of international organizations formed to raise awareness of safe motherhood, with national-level coalitions active in countries around the world. Each national-level White Ribbon Alliance emphasizes a significant community mobilization component to bring communities together to take responsibility for safe motherhood in their areas.

MEASURING RESULTS

Behavior Change Interventions in the four MNH Program countries—Burkina Faso, Guatemala, Indonesia, and Nepal—were evaluated with pre- and post-intervention population-based surveys. These studies revealed that the MNH Program has had an impact on behavior relating to maternal health. Highlights include:

An increase in childbirth with a skilled provider in Burkina Faso, Guatemala, and Nepal. In the Koupéla district of Burkina Faso, skilled attendance at birth increased from 39 percent at baseline (2001) to 58 percent at followup (2004). In Guatemala, researchers found a statistically significant increase in skilled attendance at birth in the proportion of women giving birth in the healthcare system. More than half (55%) of the exposed women in the followup survey gave birth at a facility, compared to 31 percent at baseline and 31 percent of those women who were not exposed to the Program (adjusted for sociodemographic characteristics). In Nepal, skilled attendance more than doubled, from 15 percent at baseline to 37 percent at followup. In Indonesia, although the BCI surveys did not measure a statistically significant increase, the Demographic and Health Survey reported an increase from 31 percent to 49 percent in West Java and from 43 percent to 66 percent in Indonesia overall during program implementation period (1998-2003).

An increase in antenatal care attendance in all four countries. In Burkina Faso, for example, the number of first-time users of antenatal care rose from 66 percent in 2000 to 85 percent in 2003 in the MNH Program area.

Increased awareness of severe bleeding as a danger sign during the postpartum period among women in all four countries. Women exposed to BCI activities in all four countries showed higher levels of knowledge than did women who were not exposed. The MNH Program's success in improving knowledge of this danger sign is especially crucial since more than half of maternal deaths result from postpartum hemorrhage.

An increase in the proportion of women who made arrangements for transportation to a healthcare facility in case of an obstetric emergency in all four countries. Knowledge is crucial, but equally crucial is taking responsibility for making action plans. In all four

The most fundamental and salient lesson learned from the MNH Program's BCI experiences is the importance of designing and implementing an integrated program.

countries, women exposed to BCI activities showed higher levels of action—by making arrangements for emergency transport—than those who were not exposed.

LESSONS LEARNED

The most fundamental and salient lesson learned from the MNH Program's BCI experiences is the importance of designing and implementing an integrated program. Program planning and implementation must include all stakeholders while simultaneously improving clinical services, and generating greater and better-informed demand for appropriate support and quality services. Health-seeking behavior change to improve maternal and neonatal health can occur through a program that includes the following components:

- Improving and ensuring high-quality clinical services and skills
- Creating a locally appropriate mass media component to help define safe motherhood as a broad social issue
- Establishing community mobilization systems to effect change at the community level, where pregnant women and their families live, and to make maternal health both a community effort and an explicitly shared responsibility

There is often a dynamic tension between the clinical and BCI components of an integrated safe motherhood program. In the best situation, clinical improvements and demand generation activities would be reaching fruition at about the same time, and thus would reinforce and complement each other. In reality, however, such synchronicity rarely occurs. When one component is ready before the other, the program's momentum may be impeded. Thus, close coordination is essential.

Community mobilization often takes a great deal more time, energy, and resources than anticipated. It is time-consuming to identify champions and build new, local, independently sustainable systems that will work in support of broader changes that are not quickly embraced by people in positions of power. In the four countries examined in this paper, for instance, initiatives to set up transport, funding, and blood donation systems proceeded slowly. Yet the results presented here demonstrate that these activities can be well worth the necessary time and effort. The MNH Program's experience shows that community mobilization is a critical investment that is indeed necessary to reduce maternal deaths. If these investments of time, energy and attention, and resources are not made at the community level, there will be very little chance for sustainable change to occur at any level.

MNH PROGRAM PARTNERS

The MNH Program was jointly implemented by JHPIEGO, the Johns Hopkins University Bloomberg School of Public Health Center for

Communication Programs (JHU/CCP), the Centre for Development and Population Activities (CEDPA), and the Program for Appropriate Technology in Health (PATH), with support from the United States Agency for International Development (USAID).

BEHAVIOR CHANGE INTERVENTIONS FOR SAFE MOTHERHOOD: COMMON PROBLEMS, UNIQUE SOLUTIONS—THE MNH PROGRAM EXPERIENCE

INTRODUCTION

A woman sits alone and feels the first pangs of labor. She prays that soon she will meet the child she has been carrying in her womb for the past months and that the baby's birth will be smooth. She is both calm and afraid. She takes a deep breath and feels another pain. She goes to tell her husband and family that it is time.

The MNH Program built on lessons learned and progress made by many others active on these vital life-saving issues—the worldwide Safe Motherhood Initiative, the USAID-funded MotherCare project, the Safe Motherhood Network in Nepal—and on the growing body of knowledge in evidence-based obstetric practices.

What happens next depends on where this woman lives, what she knows, and how she and others around her understand their roles and responsibilities in the hours and days that follow. Perhaps she has a sister who did not have an easy time during childbirth. Perhaps she has heard stories in the market about long labors, excessive bleeding, and even death. If she is fortunate enough to live in a country whose leaders, healthcare providers, and communities have taken steps to improve knowledge and practices in maternal and newborn health, perhaps her journey to motherhood will be safe.

The Maternal and Neonatal Health (MNH) Program worked in countries throughout the developing world to improve the conditions in which women give birth. The Program's goal was to save mothers' and newborns' lives by increasing the timely use of key maternal and neonatal health practices and interventions, and in particular by increasing the number of women who give birth with a skilled provider. The MNH Program worked to accomplish these goals by strengthening the enabling environment, improving providers' clinical skills and upgrading healthcare facilities, and mobilizing communities to demand and use the newly improved obstetric services. The MNH Program partners—JHPIEGO, the Johns Hopkins University Bloomberg School of Public Health Center for Communication Programs (JHU/CCP), the Centre for Development and Population Activities (CEDPA), and the Program for Appropriate Technology in Health (PATH)—jointly implemented MNH Program activities in more than 20 countries and globally from 1998 until 2004, through local and international collaborations, and with the support of the US Agency for International Development (USAID).

The MNH Program built on lessons learned and progress made by many others active on these vital life-saving issues—the worldwide Safe Motherhood Initiative, the USAID-funded MotherCare project, the Safe Motherhood Network in Nepal—and on the growing body of knowledge in evidence-based obstetric practices. Recent progress includes:

- A shift in emphasis from individual risk and individual responsibility to community and national environments and community-based risk factors;
- A focus on birth and the postpartum period and the important role of the skilled provider;
- Less emphasis on attempts to predict complications before childbirth;
- Greater emphasis on informed demand and demand generation to increase health-seeking behavior, utilization of services, and knowledge of necessary actions at the community, family, and individual levels;
- An understanding of the need for community involvement/collective action;
- The need for an integrated approach that includes advocacy, improved provider skills, upgraded facilities, and behavior change; and
- The need for collaboration and alliances to optimize resources and bring attention to the problem of maternal death.

Each country had a similar problem: too many mothers, wives, and daughters were dying during pregnancy or childbirth, often from conditions that were preventable or treatable.

This paper describes Behavior Change Interventions (BCI) in the MNH Program and draws conclusions about how such activities contribute to safe motherhood and will contribute to future safe motherhood initiatives as the field of behavior change develops. The paper focuses on BCI in four MNH Program countries—Burkina Faso, Guatemala, Indonesia, and Nepal. These countries are confronting similar problems resulting in too many mothers, wives, and daughters dying during pregnancy and childbirth, often from conditions that are either preventable or treatable. Each has economic, geographic, and political obstacles to overcome. Yet within each country, supportive political leaders, hard-working healthcare providers, and committed community leaders are tackling these obstacles and working to reduce the problems. Strategies to tackle the immense problems of safe motherhood must address responsibilities shared across all of these groups.

BCI AND THE MNH PROGRAM: A FOCUS ON BIRTH PREPAREDNESS AND COMPLICATION READINESS

The MNH Program promoted birth preparedness and complication readiness (BP/CR) as a means to reduce the delays—in deciding to seek care, reaching care, and receiving care—that often result in maternal and newborn deaths. A major focus and goal of the Program is to develop awareness of and encourage communication about the factors that cause these delays, and to promote shared responsibility for birth preparation and complication readiness among women, families, communities, providers, facilities, and policymakers. Central to this focus is the tenet that safe childbirth requires the availability of community- and facility-based systems that are capable of managing normal births and identifying

The MNH Program ...acknowledges that many, if not most, obstetric emergencies that kill mothers and their newborns—such as postpartum hemorrhage, infection, and hypertension—are unpredictable.

the danger signs of pregnancy, childbirth, and the postpartum period, as well as ensuring transport for a woman in crisis to a skilled provider at an appropriate facility. Throughout programming, the MNH Program was committed to building the evidence base for social and Behavior Change Interventions that generate informed demand and collective action for safe motherhood.

The MNH Program used the Stages of Change Theory as an underlying theory of behavior change.¹ This theory stipulates that individuals move through stages in the behavior change process: from acquiring knowledge, to formulating intentions, to performing behaviors. In safe motherhood, these stages are denoted as knowledge of the danger signs of pregnancy, knowledge of available and appropriate obstetric services, intentions to use services, intentions to perform certain actions to prepare for birth (plan for a skilled provider, plan to save money, plan to arrange backup transport if the need arises), and the actual carrying out of these behaviors. Moving individuals from knowledge to action is a long process, and it may take many years to measure changes in individual behaviors.

The concept of BP/CR directly influenced the design and development of BCI activities within the MNH Program. In most countries, BCI activities were aimed comprehensively at providers, communities, families, and individuals to inform and educate all on the specific roles and actions needed to ensure safe motherhood. Activities included:

- **Community mobilization techniques**—to support the development of community-based plans to transport women, help fund health services, provide education to pregnant women and their families, and create demand/community norms for healthcare services;
- **Mass media and local media**—to educate women and their families about BP/CR, advertise and promote healthcare services or providers, support community efforts to create funding and transport systems;
- **Interpersonal counseling training**—to help close cultural, ethnic, and social gaps between healthcare providers and traditional birth attendants (TBAs) and community members; and
- **Advocacy**—to institutionalize change at all levels of the healthcare system.

Two key activities were the integration of the Program's BP/CR Matrix (*Birth Preparedness and Complication Readiness: A Matrix of Shared Responsibility*) into programming and the social mobilization approach advocated by the White Ribbon Alliance (WRA) for Safe Motherhood and its national-level alliances.

¹ Stanton C. 2004. Methodological issues in the measurement of birth preparedness in support of safe motherhood. *Evaluation Review* (in press).

The BP/CR Matrix

The MNH Program technical approach shifted focus away from risk identification during pregnancy and toward the generalized risks surrounding birth and the postpartum period and the interventions needed at the community level to improve outcomes in the event of an obstetric crisis. The approach emphasizes shared responsibility, including attention to the behaviors of pregnant women as they relate to birth outcomes, while acknowledging that most life-threatening obstetric emergencies—such as postpartum hemorrhage, infection, and hypertension—are unpredictable. Since most women who have complications cannot be identified easily before childbirth, systems must be in place to ensure that skilled care is available and accessible when emergencies occur. The emphasis on shared responsibility also acknowledges that family and community members often exert control over decisions to seek medical care and use other resources such as money or transportation.

The MNH Program developed the BP/CR Matrix to outline the responsibilities of each player on the continuum to safe motherhood (see **Appendix**). The matrix is a comprehensive programming tool that incorporates the woman and her family, as well as the community, healthcare providers, health facilities, and policies that affect the care of women and their newborns wherever life-threatening delays may occur—at home, on the way to care, or at the place of care. All parts of the BP/CR Matrix are complementary, meaning that it provides an integrated framework for establishing safe motherhood interventions on all levels. It shows that improvements at each level will be most effective if change occurs throughout the system. For example, upgrading provider skills and district hospital facilities alone will not save lives unless women in crisis are identified in their communities and are able to get to an appropriate facility.

A key element of birth preparedness is identification of a skilled provider who can support a woman during labor and childbirth and can manage complications or refer the woman and/or her baby to a higher level of care. The BP/CR Matrix builds on the notion that three delays—delays in deciding to **seek care**, delays in **reaching care**, and delays in **receiving care**—are responsible for the majority of maternal deaths. In each country, or culture, many factors cause such delays. For example, failure to recognize the warning signs of complications, failure to perceive the severity of a problem, cost considerations and constraints, previous negative impressions of or experiences with the healthcare system, and transportation difficulties can all contribute to delays in seeking care. Long distances to health facilities, road conditions, and limited or costly transportation options all contribute to delays in reaching care.

Formative Research: An Important Tool in BCI Program Design

Formative research, conducted before a health communication intervention is designed, allows program planners to hear and learn from the intended audiences. Formative research techniques include needs assessments, literature reviews, focus group discussions, in-depth interviews, audience surveys, and message pre-testing.

In the MNH Program, formative research was used to define audiences, messages, and approaches. For example:

- In **Nepal**, formative research revealed that the low status of women and the low value placed on their lives was an overriding issue that affected maternal health. The mother-in-law emerged as a key audience because of her decision-making power regarding whether a woman can seek antenatal care, have an attendant at childbirth, or get help in the event of an obstetric emergency.

Also in **Nepal**, formative research helped determine how far people could be pushed beyond their comfort zone with regard to the status of women. In Nepal, certain jobs, such as carrying water, are considered “women’s work,” and it is seen as demeaning for a man to do them. The SUMATA initiative gently challenged these norms by using materials that featured a man carrying water while his pregnant wife walks beside him. Pre-testing with intended audiences and stakeholders found that this approach was acceptable.

- In **Guatemala**, researchers used an innovative formative research technique to identify barriers to care and determine the program’s approach. Participatory video discussion groups were conducted with women, men, community leaders, and TBAs. The audiences were shown two videos of maternal health-related situations—one of a woman at home with a complication and the other arriving at a hospital seeking care. Neither video had an ending. The participants were asked to act out and discuss the ending for each video. The research revealed that distance to health facilities, lack of money to pay for the transportation and other expenses, and negative views of healthcare services were major factors in women’s reluctance to seek help during an obstetric emergency. As a result of this information, the program helped communities organize emergency plans and communication efforts that addressed these issues directly.
- In **Indonesia**, program planners used lessons learned from the evaluation of a previous campaign and the baseline survey in program districts to develop the Warga SIAGA (alert citizen) and Bidan SIAGA (alert midwife) campaigns. All materials were pre-tested to ensure that intended audiences (wives, husbands, midwives, and community leaders) understood and liked the materials. Because stakeholders were involved in developing the materials, each campaign retained its own audiences and messages but they shared a common look.

Lastly, uncaring attitudes among providers, shortages of supplies or basic equipment, poor clinical skills, and language differences contribute to delays in receiving care. Many of these obstacles can be anticipated and overcome with policy changes, provider training, and community and individual education and planning.

The White Ribbon Alliance: Strengthening Social Mobilization for Safe Motherhood

The WRA was formed in 1999 by representatives from several international agencies involved with safe motherhood. It began as an informal global coalition of nongovernmental organizations (NGOs) and donors who wanted to work together toward the common goal of mobilizing grassroots efforts, generating worldwide attention, and making safe motherhood a priority for governments, donors, and international organizations. The coalition chose the white ribbon as its symbol to publicize the plight of the nearly 600,000 women who die each year from complications of pregnancy and childbirth. The color white was chosen to represent both grief and hope.

The founders of the WRA recognized that a large, united, and multi-sectoral effort was needed to ameliorate maternal suffering and death. Within 6 months of its founding, the WRA established a global secretariat and national-level alliances in Indonesia, India, Nepal, and Zambia. The WRA has since grown from a small campaign to a global movement with national alliances in 23 countries and more than 200 other individual and organizational members around the world. Members initiate and organize activities and events, mobilize resources and communities, and provide governments, policymakers, and local NGOs and international private voluntary organizations with an understanding of the urgent challenges of maternal mortality.

As the WRA began to form partnerships and build awareness throughout the world, it established three goals:

- To raise awareness of safe motherhood among citizens, international NGOs, government agencies and NGOs, and community-based organizations in developing countries;
- To build national and local alliances to save women's lives through broad-based partnerships among organizations and individuals representing a range of sectors (health, education, human rights, religion, government, and so on); and
- To act as a catalyst for action to address the tragedy of maternal deaths and expand current safe motherhood efforts.

The purpose of social mobilization is to bring together organizations, policymakers, and communities to forge a collective identity and to work toward a common goal.

From the beginning, the WRA focused on increasing awareness among stakeholders at all levels—policymakers, legislators, NGOs, healthcare providers, communities, and individuals. To increase awareness, the WRA began using a social mobilization approach that combined communication and advocacy. The purpose of social mobilization is to bring together organizations, policymakers, and communities to forge a collective identity and to work toward a common goal. The WRA's social mobilization approach was based in part on the experiences of Nepal's Safe Motherhood Network (SMN), which was formed in 1996 to bring the public's attention to the nation's high maternal mortality rate. The

SMN focused its attention on communities and families to complement the government's plans to work at the hospital level. The WRA encourages its country alliances to use many of the same principles the SMN developed to mobilize communities and form partnerships.

The WRA and the MNH Program

In its first year, the WRA began to lay the foundation for rapid expansion. USAID allocated the initial funding for use by the WRA's member organizations, including the MNH Program, to establish and support country-based alliances. The MNH Program helped establish national WRAs in Burkina Faso, China, Haiti, Indonesia, Nepal, Nigeria, and Zambia. Each country alliance developed its own identity, priorities, and strategies for improving maternal health in its communities. By being flexible about how people in each country develop effective partnerships, the alliance fosters local ownership and optimal results at the grassroots level, where women and families can be reached.

The MNH Program adopted the WRA social mobilization framework as it began to work with communities to establish safe motherhood as a grassroots priority. The approach relies on building strong in-country alliances for advocacy, championship, and information dissemination at all levels. These partnerships allow the reach of the MNH Program to go beyond the borders of the project area, facilitating replication and scale-up of the program. Some of the principles used include the following:

- Structuring alliances to promote a sense of ownership by all members
- Identifying and mapping resources at the district and local levels
- Engaging charismatic leadership and support
- Coordinating program efforts to avoid duplication
- Building awareness through events and working with the media for maximum impact
- Using creative communications
- Building member capacity
- Ensuring group ownership of all materials
- Using members' strengths and championing alliance efforts
- Working with government counterparts and NGOs
- Using a standard set of statistics for program purposes

The MNH Program also facilitated information sharing between national alliances. For example, India developed a WRA press packet that was adapted by Nepal, and Zambia's activity tool kit was translated and adapted for use in Burkina Faso.

One of the major strengths of the national-level WRAs is their ability to develop unique, customized events and creative responses to the problem of maternal mortality in their countries. For example:

- In **Zambia**, the Zambia White Ribbon Alliance for Safe Motherhood (ZWRASM) distributed information and white ribbons at the National Agriculture Show, one of the major public events in the country. To date, ZWRASM has distributed approximately 40,000 fliers, buttons, and white ribbons.
- ZWRASM (**Zambia**) created a mobilization toolkit that includes technical information on safe motherhood and ideas for planning and implementing activities, including guidelines for conducting group discussions, scripts for community theater presentations, and information on birth planning. This toolkit has been shared with WRA members worldwide.
- ZWRASM (**Zambia**) also held a competition to create awareness among journalists who have an interest in reporting safe motherhood news and stories. The competition generated 40 submissions; the majority highlighted personal narratives and case studies from rural areas. Many stories appeared in local media.
- In **Ghana**, important changes in local practices are underway in three communities as a result of WRA activities. One local practice that the communities have changed is the use of *kalogotim*, a harmful herbal substance that has traditionally been given to pregnant women.
- Also in **Ghana**, a growing number of community leaders are now willing to allow pregnant women to seek antenatal care before the pregnancy is officially announced, which traditionally is not until the fifth month.
- The WRA of **Indonesia**, *Pita Putih*, is working with government officials to plan national approaches to improving maternal health, including providing input on a draft health law. This is the first time any NGOs have been invited to participate in high-level maternal health planning.
- In **Vietnam**, the WRA held a painting competition for children. The theme was “My Mother.” The winning paintings will be used to increase awareness of safe motherhood issues in the country.
- **Burkina Faso** was one of the winners of the annual White Ribbon Contest in 2003, for its launch of a WRA on International Women’s Day in March 2002. The launch included marches, bike races, fashion shows, games, and other events. Burkina Faso’s WRA was a White Ribbon Contest winner in 2004 as well.
- Globally, the MNH Program has initiated the first monitoring system to capture results from community-driven campaigns. All national-level alliances can access the WRA leadership for support in these monitoring efforts, and several have held national meetings with partial support from the MNH Program to train WRA members in using the monitoring tools effectively.

PROGRAMMING BCI: FOUR COUNTRY EXAMPLES

This section describes the MNH Program's BCI activities in four countries—Burkina Faso, Guatemala, Indonesia, and Nepal. Although in each country the MNH Program and its partners tailored strategies and approaches to unique cultural and ethnic characteristics, all share some common threads that can provide examples and lessons for safe motherhood communication efforts in other countries. In each of these countries, the MNH Program and partners were able to:

The most profound changes in Burkina Faso, Guatemala, Indonesia, and Nepal happened at the community and individual levels as a result of the efforts of committed local groups and individuals.

Encourage the sharing and optimization of resources. As the BP/CR Matrix makes clear, everyone is responsible for maternal health (including government agencies, NGOs, private sector groups, and community leaders). In both Nepal and Burkina Faso, for example, several local and international organizations implementing safe motherhood activities helped extend the reach and spread of MNH Program messages.

Use data to identify the most common causes of maternal death and create interventions to directly address them. In many cases, obstetric emergencies cannot be predicted or prevented, but they can be treated. In Burkina Faso, Guatemala, Indonesia, and Nepal, postpartum hemorrhage is the most common cause of maternal death. Each country program educated providers and women about this danger sign and urged quick action. In Indonesia, the SIAGA campaign trained providers on the active management of the third stage of labor and encouraged women to give birth with a skilled provider who could manage complications. These interventions are helping to reduce the incidence of postpartum hemorrhage. In Bolivia, another MNH Program country, 17 districts with disproportionately high rates of maternal deaths were given priority for safe motherhood interventions to increase access to technically competent and culturally appropriate care.

Cast a wide net and create a climate of trust and collaboration. The MNH Program's BCI approach reinforced that everyone has a role to play in preventing maternal deaths, and each stakeholder should be involved in planning and playing clearly defined roles. This helps to decrease competition and improve collaboration. In Indonesia and Burkina Faso, the formation of a White Ribbon Alliance brought stakeholders together on an equal footing and facilitated trust and collaboration among groups advocating for change.

Organize and build capacity for local leadership and action. Ownership, pride, and efficacy at the local level provide the motivation to create and institutionalize change. The most profound changes in Burkina Faso, Guatemala, Indonesia, and Nepal happened at the community and individual levels as a result of the efforts of committed local groups and individuals. For example, in Burkina Faso, a retired police captain who served as treasurer of the White Ribbon Alliance

personally petitioned the Secretary General of the Ministry of Health when the district's only anesthetist was transferred. A replacement was soon assigned. In the meantime, a local group that worked to increase access to emergency care helped cover the cost of evacuation to the National Hospital for every patient who needed emergency care.

Challenge social norms and encourage shared responsibility. Safe motherhood must be seen as a community challenge, not the problem of an individual woman or her family. Once a community embraces safe motherhood as a collective goal, it can work to remove some of the obstacles between women and safe childbirth. In Guatemala, for example, TBAs were trained to recognize danger signs and refer women for care. Often this meant convincing a reluctant husband to transport his ailing wife and then traveling with a laboring woman to the hospital and advocating for her care. In Nepal, mothers-in-law were included in the target audience in recognition of their decision-making power in the family, especially regarding the use of medical services.

Link providers to the community and promote their services. In Indonesia, one of the goals of the SIAGA campaign was to increase the presence of midwives at birth. The Bidan SIAGA (alert midwife) campaign addressed this issue by promoting the services of newly trained midwives. Using mass media, the campaign positioned midwives as friendly and approachable. In Burkina Faso, healthcare providers met with community members to increase knowledge of danger signs during pregnancy and childbirth. In Guatemala, once a health facility achieved accreditation as a provider of high-quality services, it was promoted extensively in its catchment area.

Use mass media. Media campaigns extend the reach of a program beyond its operating boundaries and legitimize the topic of safe motherhood, helping to create an enabling environment for action. Mass media played a key role in each country by providing relevant information and reinforcing the central messages of the community mobilization efforts and the healthcare providers.

Mobilize around events to capture attention. New initiatives can take advantage of the momentum and attention that already exist around a popular day or event. In Burkina Faso, the WRA was launched with much fanfare on International Women's Day, 8 March 2002, and another attention-grabbing event was held the next year on the same date. The WRA in Burkina Faso also creates interest around Africa Malaria Day in April and the Day to Reduce Maternal Mortality in June of each year. Zambia's WRA handed out ribbons and information at the National Agriculture Show, one of the major public events in the country.

Recognize the multiple factors that contribute to lasting behavior change and work on many levels simultaneously. Each country used the BP/CR Matrix as a planning guide and designed locally sustainable interventions at all levels. Each country can expect to see ongoing

improvements in knowledge, attitudes, and behavior as safe motherhood initiatives that have taken root continue to grow through local ownership.

The four country examples that follow describe the BCI activities—both social mobilization through the WRA and behavior change communication—implemented by the MNH Program in each country. In addition, the country examples highlight the results of surveys conducted by the Program to measure the effects of these activities on knowledge of BP/CR and demand for and use of skilled care.

BURKINA FASO: WORKING TOGETHER

In Burkina Faso, Fatima gathers the supplies she has assembled for the birth and asks her husband to contact the auxiliary midwife. Her husband checks that the money he has set aside for transport in case of an emergency is safe in his pocket.

PROGRAM OVERVIEW

Burkina Faso: MNH Program Context

National Population:
13.6 million²

National Maternal Mortality Ratio:
930 per 100,000 live births

MNH Program Area:
Koupéla district—
population 300,000

The West African country of Burkina Faso has a maternal mortality ratio of 930 deaths per 100,000 live births. High fertility, poverty, and limited natural resources make it one of the least developed countries in the region. Many donors, international agencies, and NGOs are working to improve the country's reproductive health situation.

The MNH Program began working in Burkina Faso in 1999. Its mission was to increase the use of skilled providers during pregnancy, childbirth, and the postpartum period and to strengthen the operational capacity of the district health system. This strategy had four main components: interagency collaboration, policy and advocacy, performance and quality improvement, and increasing community demand for access to high-quality health services.

The MNH Program in Burkina Faso was developed as a pilot project with the expectation that the approaches and tools proving useful in one district—Koupéla—would be disseminated to other districts in Burkina Faso and other countries in the region. The MNH Program first worked with the Division of Family and Reproductive Health to develop national policies, norms, and protocols for reproductive health. Program staff then worked with the Koupéla District Health Medical Team to introduce the policies, norms, and protocols to providers in 11 health centers and two hospitals. These providers are now trained to follow standard, internationally accepted guidelines for basic and emergency maternal and neonatal healthcare, infection prevention, family planning, and postabortion care.

Collaboration was instrumental to the success of the MNH Program in Burkina Faso. The program has partnerships with numerous international and national organizations, which are effectively leveraging resources and contributing to the scale-up and sustainability of best practices to improve maternal and newborn care. For example, a rapid communication (radio) system was installed in all 23 district health centers in the Koupéla district (with funding from UNICEF), including the 13 MNH Program sites, to improve referral and transfer of obstetric and neonatal emergencies. UNICEF also funded the production and distribution of an instructional flipchart and training guide designed to educate community members about maternal and newborn health. Every

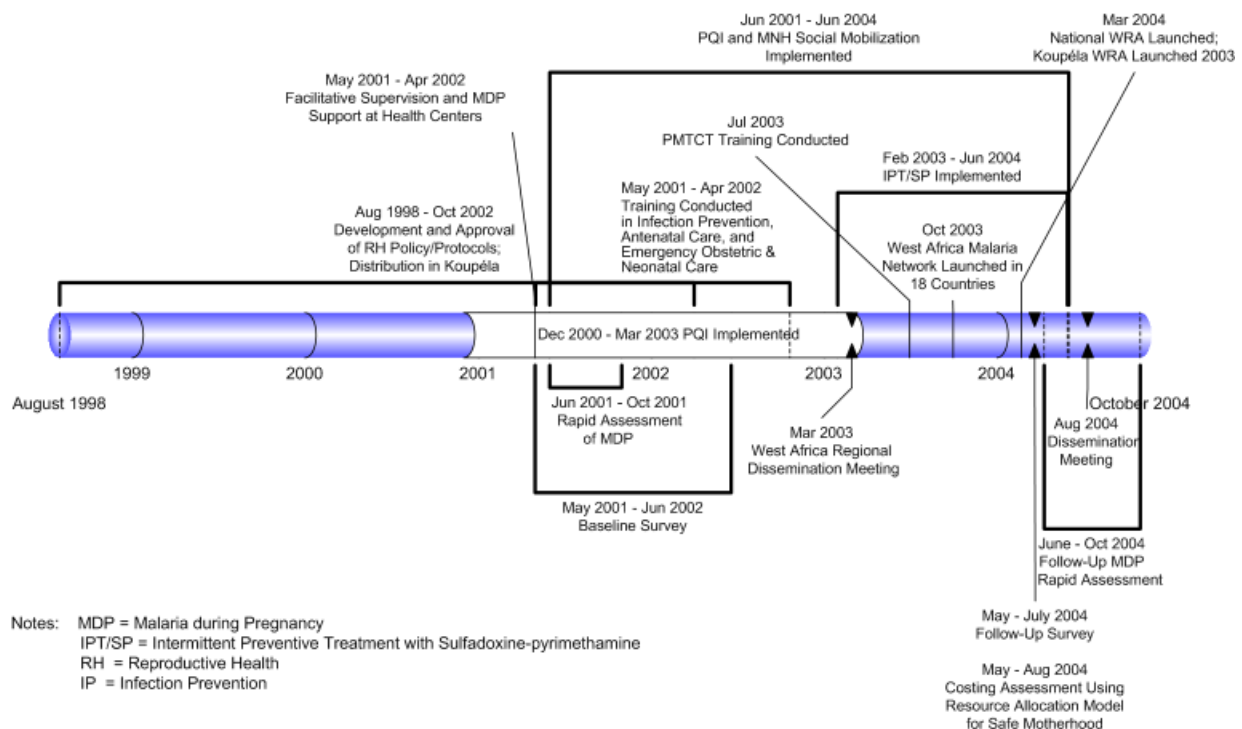
² Population Reference Bureau. 2004. *2004 World Population Data Sheet*. Population Reference Bureau: Washington, D.C.

community facilitator now uses the flipchart for educational activities. In addition, UNFPA funded the production of the flipchart for use in northern Burkina Faso.

This program was one of the few in West Africa in which providers, supervisors, and community members successfully worked together, using a performance and quality improvement (PQI) approach to strengthen service delivery and increase the use of skilled providers during pregnancy, childbirth, and the postpartum/newborn period. During supervisory visits in 2003, 100 percent of observed providers were assessed as competent in maternal and neonatal health skills—up from 80 percent in 2002. Sentinel skills for these assessments included active management of the third stage of labor and use of the partograph. The MNH Program also implemented a cost-sharing system in collaboration with the District Health Management Team, UNICEF, and Plan International. With the new cost-sharing system in place in Koupéla, the 58 women participating in the system in 2003 received a 60 percent reduction in their out-of-pocket costs for care.

The MNH Program also introduced two additional services: intermittent preventive treatment for malaria during pregnancy, using sulfadoxine-pyrimethamine (SP), and prevention of mother-to-child transmission of HIV. Six months after the introduction of this approach to 23 health centers in the Koupéla district, 76 percent of women who attended antenatal care had received at least one dose of SP under direct observation, 44 percent had received two doses, and 22 percent had received three doses.

Figure 1. Constellation of MNH Program-Supported Activities in Burkina Faso



BCI ACTIVITIES

Once competent providers and fully equipped health centers were in place, efforts to mobilize the community to use the revamped services began. The community mobilization efforts were part of the PQI process and designed to reinforce communication between the community, TBAs, and health service providers, specifically related to BP/CR. Aims of the social mobilization efforts included enhancing the trust between community members and providers, increasing knowledge and action for BP/CR, and raising expectations for improved quality of care.

The MNH Program's approach to community mobilization in Burkina Faso utilized the village health management committees (CoGes) to initiate dialogue promoting positive actions for safe motherhood. Members of the CoGes were trained in the PQI approach and helped community members identify gaps in maternal and neonatal healthcare and ways to close them. The CoGes partnered with TBAs and local leadership groups to set up mechanisms for emergency transport and funds to assist community members with obstetric or neonatal health crises. In 2003, a network of 13 CoGes was formed; the network holds regular meetings to improve communication between healthcare providers and the community. The MNH Program, in collaboration with UNICEF, worked with the CoGes to establish a communication system and revolving emergency funds for emergency transport and medical services.

The aims of the social mobilization efforts were to enhance the trust between the community and providers, increase knowledge and action for BP/CR, and raise expectations for improved quality of care.

Trained healthcare providers conducted monthly discussions with community members about birth preparedness, recognition of danger signs, and ways to organize rapid responses to maternal and neonatal emergencies. These meetings strengthened community members' trust in their local healthcare providers. In addition, TBAs and healthcare providers met regularly to discuss danger signs, BP/CR, malaria during pregnancy, and prevention of mother-to-child transmission of HIV.

Mass and local media were also used to spread safe motherhood messages. A local theater group wrote a play about BP/CR, which they performed in 80 villages, reaching approximately 10,000 people. In collaboration with Plan International, three local radio stations broadcast MNH Program messages at the district level about once per month. Local women in the MNH Program villages developed safe motherhood songs in the local language and performed them during ceremonies and public events.

Establishing, developing, and expanding a White Ribbon Alliance was another key MNH Program focus in Burkina Faso. The national WRA was an effective way to bring stakeholders together to work for safe motherhood. The WRA of Burkina Faso was officially launched in March 2002 on International Women's Day. The celebration included marches, bike races, fashion shows, games, and other events to highlight

safe motherhood. Thousands of people took part in these activities. The global WRA recognized this achievement by naming Burkina Faso's national WRA one of the winners of the annual international White Ribbon Contest. Winning this contest contributed to the alliance members' visibility and provided momentum for further activities.

BCI EVALUATION AND RESULTS

The MNH Program's evaluation of its BCI activities showed that the PQI initiative and community-based and media approaches to increasing demand made an impact. Skilled attendance at birth increased from 39 percent at baseline (2001) to 58 percent at followup (2004). The followup result was 59 percent among women who reported exposure to MNH Program messages and 55 percent for those who were not exposed. The percentage of women who had recently given birth who made at least four antenatal care visits increased significantly, from 21 percent in 2001 to 44 percent in 2004.

Evaluation design. The MNH Program was formally evaluated with a population-based baseline survey in 2001 and a followup survey in 2004.³ The survey samples included pregnant women, women who had had a child in the previous 12 months, husbands, TBAs, older women (e.g., mothers and mothers-in-law of the new mothers), and community leaders. A total of 720 people were interviewed during each survey. In addition, interviews were conducted at followup with 30 women who had had a child in the previous 12 months.

MNH Program BCI Survey Highlights: Burkina Faso

MNH Program Surveys:

Baseline: May 2001–June 2002; sample size: 720

Followup: May–July 2004; sample size: 720

Survey Results:

- 69% of women surveyed reported exposure to MNH Program messages
- Spontaneous identification of severe postpartum bleeding as a danger sign:
 - Baseline: 51% of women surveyed
 - Followup: 57% of women surveyed (62% exposed; 45% unexposed)
- Reported use of skilled provider at birth within previous year:
 - Baseline: 39% of women who had given birth in previous year
 - Followup: 58% of women who had given birth in previous year (59% exposed; 55% unexposed)

Exposure. Approximately 69 percent of women and 70 percent of husbands reported that they had been exposed to the MNH Program's activities or messages. Exposure was lowest among community leaders (53%).

³ Details of the methodology and results of the surveys are included in the MNH Program report, *Measuring the Effects of Behavior Change Interventions in Burkina Faso with Population-Based Survey Results*, 2004.

Source of information. Exposed respondents most frequently reported that they had received BP/CR information from a healthcare provider. Eighty-six percent of women, 77 percent of husbands, 76 percent of older women, 94 percent of TBAs, and 75 percent of community leaders cited a healthcare provider as their source of information about BP/CR. Radio and community mobilization agents were the next most frequently cited sources.

Increase in Knowledge and BP/CR

- **Knowledge of danger signs during pregnancy.** Knowledge of danger signs increased among exposed women and husbands. The danger sign mentioned most frequently by survey respondents was bleeding during pregnancy, followed by fever, swelling in the hands or face, and headaches. At followup, 42 percent of women and 36 percent of men spontaneously mentioned bleeding during pregnancy as a danger sign, with a greater increase among exposed groups.
- **Knowledge of danger signs during childbirth.** At followup, women and husbands most frequently mentioned prolonged labor and severe abdominal pain as danger signs during childbirth. Seventy-eight percent of exposed women spontaneously mentioned prolonged labor ($p<.05$) as a danger sign, compared to 62 percent of unexposed women.
- **Knowledge of danger signs during the postpartum period.** The danger sign mentioned most frequently by women and husbands was severe vaginal bleeding. There was a significant increase in knowledge of this danger sign between baseline and followup, and a significant difference between exposed and unexposed respondents.
- **Knowledge of danger signs during the neonatal period.** Danger signs mentioned most by both groups of women and husbands were fever and feeding difficulties.
- **Birth planning.** Pregnant women and women who had recently given birth showed tremendous improvement in birth planning at followup, and improvement was most marked among respondents who had been exposed to the MNH Program (see **Table 1**). Pregnant women were asked about their plans to prepare for birth, which included arranging a mode of transportation, saving money, and giving birth in a health center with the assistance of a skilled provider. At followup, 85 percent of women planned to give birth at a health center, a significant increase compared to just 70 percent at baseline. The percentage of respondents who reported saving money as part of birth planning also increased significantly, from 46 percent at baseline to 61 percent at followup. Respondents in the exposed group were more likely to recount different specific elements of a birth plan.

Table 1. BURKINA FASO: Distribution of Pregnant Women, by Preparations Made for Childbirth, 2001 Baseline Survey and 2004 Followup Survey

Preparations for Childbirth	Currently Pregnant Women							
	2001 Baseline (n=180)		2004 Followup					
	N	(%)	Exposed (n=123)		Unexposed (n=57)		Total (n=180)	
			N	%	N	%	N	%
Arrangement for transport	67	37.2	68	55.3	24	42.1	92	51.1
Arrangement for financing	82	45.6	81	65.9	29	50.9	110	61.1*
Arrangement for a skilled provider	120	66.7	87	70.7	40	70.2	127	70.6
Arrangement for giving birth at a health facility	126	70.0	107	87.0	46	80.7	153	85.0**

* p<.05; ** p<.01

Birth planning among women who had recently given birth also demonstrated a marked increase. The percentage of women who made plans for transport as part of birth preparedness and complication readiness rose from 3 percent of women at baseline to 46 percent at followup. In addition, the percentage of women who made financial plans increased from 1 percent at baseline to 83 percent at followup.

Evidence of the success of the MNH Program in Burkina Faso can also be seen in the scale-up of interventions, both within Burkina Faso and in other countries in the region. Implementing a model program in one district has expedited national-level scale-up because it provided a training site to develop enough trainers to begin national-level implementation of the Program. Other international donors are funding the implementation of PQI in all regional health centers and several other districts. In addition, a subsequent social mobilization campaign in Burkina Faso to address the dangers of malaria during pregnancy was designed and implemented based on community advocates' experiences in WRA campaigns. Local leaders had developed their skills for organizing events through the WRA and were able to apply them in the new campaign against malaria.

GUATEMALA: TAKING ACTION

After several hours with little progress, the local midwife decides to take Gabriela to the nearest hospital. She sends for the local fireman who has agreed to transport women to the hospital for a fair price. Gabriela and her husband Carlos pay with the money they have set aside. The midwife accompanies the family to the hospital and makes sure Gabriela gets care immediately.

PROGRAM OVERVIEW

Guatemala: MNH Program Context

National Population:
12.7 million⁴

National Maternal Mortality Ratio:
153 per 100,000 live births

MNH Program Area:
Three departments—Quiché, Sololá, and San Marcos

Guatemala has one of the highest maternal mortality rates in Latin America: In 2000, an estimated 153 women died for every 100,000 live births.⁵ The major causes of maternal deaths in Guatemala—hemorrhage, infection, and hypertension—are preventable if recognized and treated in a timely manner. In western Guatemala, between 69–80 percent of women give birth at home, most with the help only of a TBA or family member, or without any help at all. Complications can quickly lead to death if the woman, provider, family, and community are not prepared to act. In 1998, the MNH Program began working with the Guatemalan Ministry of Health and Public Assistance to improve essential maternal health services and to help women, their families, and their communities recognize obstetric emergencies and take appropriate action. USAID supported the MNH Program through its Guatemala-Central American Program.

The goal of the MNH Program in Guatemala was to increase the adoption of practices and use of services that are key for maternal and newborn survival, by:

- Establishing a network of high-quality, accredited essential maternal and neonatal care (EMNC) services,
- Increasing appropriate use of accredited community and institutional services, and
- Strengthening policies and norms to sustain an adequate provision of EMNC services.

To accomplish these goals, the MNH Program carried out two principal technical activities, EMNC and BCI, and also conducted some policy activities. The approach taken in Guatemala closely integrated three main areas of focus: supply (service delivery), demand, and the institutionalization of successful approaches and interventions.

As a first step, the program developed an accreditation system using a PQI approach. The approach ensured that health facilities (hospitals, health centers, and health posts) had skilled personnel, supplies, and

⁴ Population Reference Bureau. 2004. *2004 World Population Data Sheet*. Population Reference Bureau: Washington, D.C.

⁵ Ministry of Health, Guatemala. 2003.

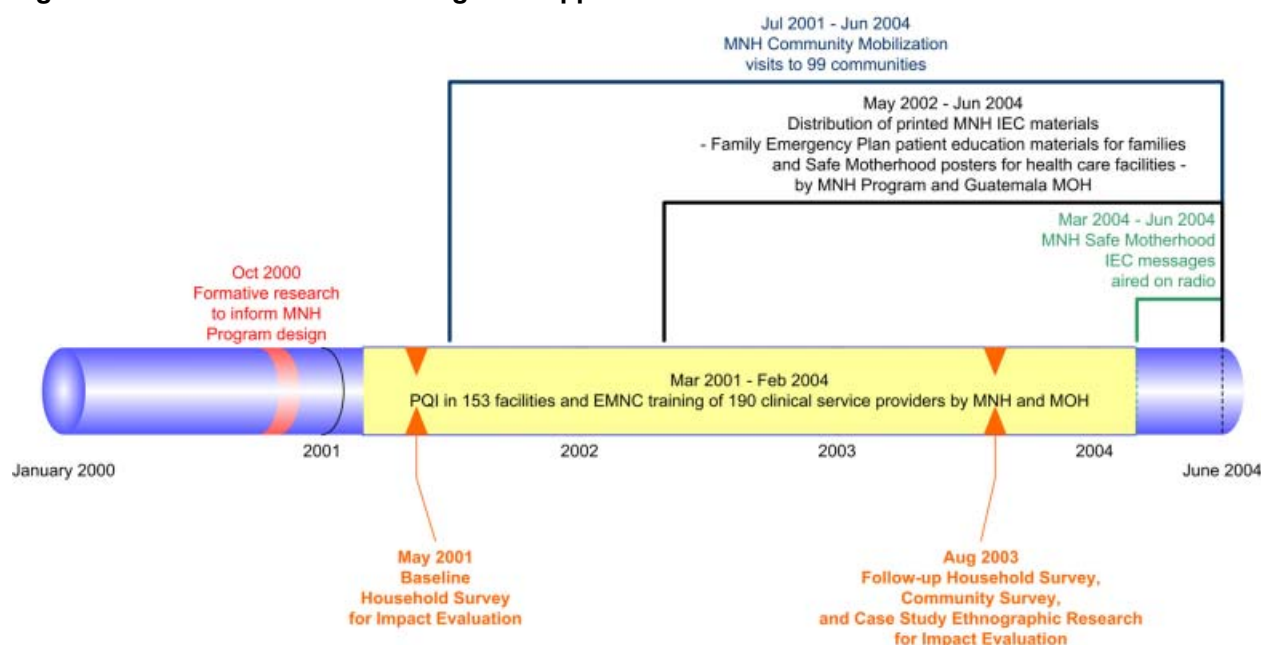
management systems in place to handle obstetric emergencies. The accreditation model was based on a set of quality criteria and standards that focused on clinical, interpersonal, and cultural elements, addressing the following areas:

- Care of women during obstetric emergencies
- Care of women during labor, childbirth, and immediately postpartum, and care of the newborn
- Support services
- Infection prevention
- Information/education/communication and demand generation
- Human resources, physical facility, materials/supplies, and logistics
- Managerial systems

Regional training centers were established to train providers in essential obstetric care, and a national-level accreditation committee was created to implement the program. This group applied a set of quality criteria checklists at the different health facilities. The first application of the checklists identified the strengths and weaknesses of each facility. The staff was then charged with developing strategies to overcome the weaknesses. Many of the problems encountered involved management, logistical, and physical plant issues, not a lack of skills or knowledge. Six to nine months after the initial review, an accreditation committee visited each facility again. Facilities that had achieved 85 percent or more of the quality criteria were designated as “quality health facilities” for maternal health services. A communication program was then implemented to inform the community about the improved services at the facility. By the end of the program, about 13 percent—two hospitals, nine health centers, and seven health posts—of the 140 facilities supported by the MNH Program in the PQI process had achieved accreditation.

Between 2001 and 2004, 86 healthcare providers received training in basic EMNC skills, and 104 providers received comprehensive training. The MNH Program also trained 57 clinical trainers who can now implement further training events in Guatemala. In addition, 332 providers received infection prevention training from the MNH Program and 440 received training in interpersonal relations and intercultural communication.

Figure 2. Constellation of MNH Program-Supported Activities in Guatemala



BCI ACTIVITIES

The MNH Program's behavior change and community mobilization interventions in Guatemala focused on creating informed demand for obstetric services and helping communities and families organize themselves to respond effectively to obstetric emergencies. As a first step, formative research was conducted to identify the barriers preventing women from accessing antenatal and postnatal care.⁶ In-depth interviews and participatory discussion groups with community members and leaders, along with a population-based baseline survey, provided information about family and community issues affecting pregnancy, childbirth, and the postpartum period. Program staff used these findings to design the communication interventions.

The BCI activities addressed both cultural norms and barriers to accessing obstetric care, including lack of transportation, lack of funds, and fear of being mistreated at the facility. Using mass media and community mobilization activities, the Program promoted improved healthcare services and encouraged people to use them. Additional information was provided at antenatal care visits as well. The Program also encouraged families and communities to develop emergency plans to transport a woman to a skilled provider in the event of an obstetric emergency.

⁶ See *Formative Research: An Important Tool in BCI Program Design*, p. 5.

The behavior change and community mobilization interventions in Guatemala focused on creating an informed demand for obstetric services and helping communities and families organize themselves to effectively respond to obstetric emergencies.

Mass media included radio spots that generated demand for accredited services and encouraged birth preparedness. A set of print materials supported healthy pregnancy and the recognition of danger signs, helped families and communities organize their emergency plans, and strengthened providers' interpersonal counseling skills. Providers also received training in counseling and interpersonal skills, especially for working with people from a different ethnic or cultural group.

Community mobilization activities focused on the development of a community action plan to transport women with obstetric emergencies to a medical facility. Formative research identified that the distance to a health facility and lack of money to pay for transportation and cover other expenses were the two main reasons women did not seek emergency care. Communities were led through a five-step community mobilization cycle (Save the Children's Community Action Cycle) to develop their emergency plans. In most communities, the emergency plan included a transportation plan that identified vehicles that could be accessed when needed and arranged a fixed price for transport, and a funding scheme that helped pay for the transport and other related expenses.

BCI EVALUATION AND RESULTS

Evaluation design. Results from the formative research informed selection of 100 communities for inclusion in the program. Using stratified random sampling, research staff selected 55 of the original 100 communities for a baseline survey in 2001 and a followup survey in 2003, both conducted by GSD Consultores Asociados, a local research firm.⁷

The initial design for the impact evaluation was quasi-experimental and included a comparison group, but the design was changed in 2003 to a simpler baseline and followup comparison after the Ministry disseminated the MNH Program materials widely throughout the country. Researchers surveyed women of childbearing age and their partners and compared baseline and followup data, with responses at followup disaggregated between individuals exposed to Program messages and those not exposed, also adjusting for socio-demographic characteristics, as appropriate. The baseline survey was conducted in 2001 with 1,008 women and 499 men in the three states where the MNH Program implemented activities—Quiché, San Marcos, and Sololá. The followup survey was conducted in the same three states with 1,098 women and 545 men. Data from the post-test were used to measure differences between those exposed and those not exposed to MNH Program activities.

In addition, researchers conducted in-depth interviews of community leaders, group interviews of health committee members, and case

⁷ Details of the methodology and results of the surveys are included in the MNH Program report, *Measuring the Effects of Behavior Change and Service Delivery Interventions in Guatemala with Population-Based Survey Results*, 2004.

histories of women who experienced obstetric complications in one of the communities with an active health committee. Researchers included only those women who had had a child in the 12 months prior to the survey in both the baseline (n=325) and followup (n=787) to minimize recall bias.

The evaluation showed significant improvements in knowledge, attitudes, and practices among women exposed to Program interventions when compared to those in the baseline survey.

MNH Program BCI Survey Highlights: Guatemala

MNH Program Surveys:

Baseline: May 2001; sample size: 1,008 women and 499 men

Followup: August 2003; sample size: 1,098 women and 545 men

Survey Results:

- 29% of women surveyed reported exposure to BCI Campaign
- Spontaneous identification of severe postpartum bleeding as a danger sign:
 - Baseline: 30% of women surveyed
 - Followup: 36% of women surveyed (50% of exposed; 29% of unexposed)
- Reported use of a skilled provider at birth within the previous year*:
 - Baseline: 31% of women who had given birth in previous year
 - Followup: 38% of women who had given birth in previous year (55% of exposed; 31% of unexposed)

* Differences are statistically significant at .01 level between baseline and followup and exposed and unexposed respondents adjusting for socio-demographic characteristics.

Knowledge and Exposure. Almost one-third of women and men in the followup survey reported exposure to some aspect of the Program's activities and/or messages (see **Table 2**). Statistically significant improvements were found in the percentage of women and their partners who recognized that severe bleeding during pregnancy and childbirth required immediate attention at a healthcare facility. Sixty-six percent of exposed women recognized that severe bleeding is dangerous, compared to 31 percent of women in the baseline, and 51 percent of exposed men recognized the danger of severe bleeding, compared to 22 percent of men in the baseline. There were also statistically significant differences in knowledge of severe bleeding between exposed and unexposed men and women. These differences still held after controlling for socio-demographic characteristics and for receiving antenatal care during the last pregnancy.

Table 2. GUATEMALA: Percentage of Respondents with Knowledge of Danger Signs Other than Bleeding during Pregnancy, by Survey and Exposure

Danger Sign during Pregnancy	Women Who Recently Gave Birth			Husbands of Pregnant Women and Women Who Recently Gave Birth		
	Baseline (n=325)	Followup (n=787)		Baseline (n=512)	Followup (n=546)	
		Exp. (n=225)	Unexp. (n=562)		Exp. (n=166)	Unexp. (n=380)
Severe headache	7.4%	20.9%**	9.4%	4.5%	16.9%**	8.9%
Convulsions	1.2	3.1**	0.5	1.4	1.2	.5
Swollen hands	8.3	15.6**	6.8	5.5	10.8*	6.1
High fever	6.1	14.2	8.4	8.0	12.6	8.2
Loss of consciousness	3.1	7.6**	2.0	3.1	10.2**	3.2

*p< .05 ** p<.01 for testing differences between baseline and followup, and for testing differences between exposed and not exposed at followup, adjusting for socio-demographic characteristics and for use of antenatal care for last pregnancy

Knowledge of severe bleeding during the postpartum period was also significantly higher among both men and women exposed to the MNH Program than among those in the baseline and those not exposed to the Program. These differences hold when controlling for socio-demographic characteristics and for receiving antenatal care during the last pregnancy.

Both women and men showed statistically significant increases in knowledge of other danger signs during childbirth, although knowledge remains low. For example, 24 percent of exposed women at followup knew that the mother should be taken to a healthcare facility if the placenta is not delivered within 30 minutes of giving birth—compared to 9 percent at baseline and 6 percent at followup among those not exposed. Knowledge for men likewise shows improvement correlated with MNH Program exposure.

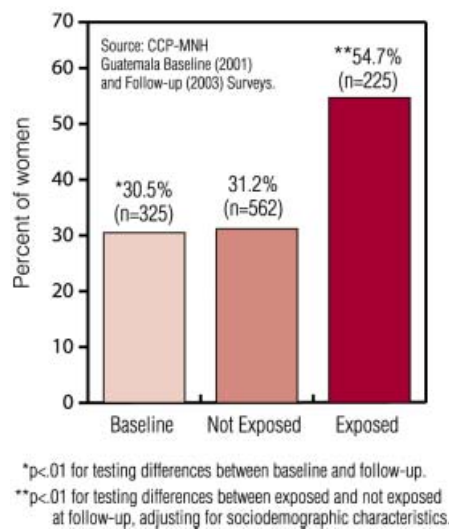
Beliefs. In the followup survey, researchers found statistically significant changes among women exposed to the interventions regarding their beliefs about whether a woman should seek skilled care during pregnancy, childbirth, and the postpartum period. Exposed women (93%) in the followup were significantly more likely than non-exposed women (72%) and women in the baseline (66%) to believe that a woman should receive antenatal care from a skilled provider. A similar pattern was seen regarding women's beliefs that a mother should receive skilled care for childbirth. A higher percentage also believed that women should receive skilled postpartum care. Men in the study reported similar changes. These changes hold when controlling for socio-demographic characteristics.

Behavior and Use. At baseline, only 5 percent of women reported having made a plan for transportation in case of an obstetrical

emergency. At followup, 35 percent of women exposed to the MNH Program reported having made a plan, compared to 12 percent of those not exposed. The percentages of both unexposed and exposed women who reported setting aside money increased at followup, from a baseline of 7 percent to 62 percent of the exposed and 26 percent of the unexposed women. These changes are statistically significant.

Researchers found a statistically significant increase, adjusted for socio-demographic characteristics, in the proportion of women giving birth in the health system. More than half (55%) of the exposed women in the followup survey gave birth at a facility, compared to 31 percent at baseline and a stable 31 percent of those women not exposed to the Program (see **Figure 3**).

Figure 3. GUATEMALA: Percentage of Women Giving Birth in the Health System



Community Mobilization. Although community mobilization efforts began slowly, evidence in 2004 suggested that community health committees could be effective in improving maternal survival. Only 23 of the 55 communities surveyed at followup had initiated any community mobilization activities. Of those 23, 12 had an active community health committee to improve maternal survival by the time of the followup survey. Only two of the community health committees included a TBA among its members, however. Inclusion of a TBA is important because she is a crucial link between pregnant women and the formal healthcare system, and the first line of referral during an obstetric emergency. Very few of those interviewed reported that their community had a transport plan (7% of the women, 8% of the men, and 8% of the community leaders). Approximately 3% of the women, men, and community leaders reported that their community had a funding plan. However, the majority of interviewees agreed that the creation of a health committee and the use of an emergency plan for obstetric complications would be a positive activity.

MNH Program results in Guatemala provide evidence that the Program's strategy of fostering collaboration among public and private entities can lead to increased knowledge, improved attitudes, and behavior change, and actual use of healthcare services that can contribute to improved maternal and neonatal survival.

INDONESIA: EVERYONE NEEDS TO BE ALERT

Sumani's husband jumps into action. He gathers her things and takes her to the bidan di desa as previously planned. Her family and neighbors accompany her and wait for news of the birth. As they wait, they review the plans they have put in place in case of an emergency.

PROGRAM OVERVIEW

Indonesia: MNH Program Context

National Population:
218.7 million⁸

*National Maternal
Mortality Ratio:*
390 per 100,000 live
births

MNH Program Area:
West Java and Banten
provinces—population
42 million

Approximately 18,000 women in Indonesia die each year in childbirth or the immediate postpartum period. Most of these deaths are due to hemorrhage, which can lead to death within 2 hours if it is not managed. For more than a decade, maternal mortality reduction has been one of the top program priorities of the Ministry of Health. Given prior high levels of home-based births, having skilled care at childbirth or very nearby (at the community level) has been a central strategy to improving maternal health in Indonesia. In 1991, the government's Safe Motherhood Program began educating an estimated 54,000 community-based midwives (called *bidan di desa*). The focus shifted in 1995 to improving the performance of these midwives, strengthening quality of care, and increasing maternal and neonatal health services throughout the country. Since 1997, the Ministry of Health has emphasized an integrated reproductive health framework of services, including promoting safe motherhood. In 2001, the Ministry of Health adopted the World Health Organization's (WHO's) Making Pregnancy Safer approach as its national framework.

The MNH Program in Indonesia began in 1999 in partnership with the Ministry of Health, Ministry for Women's Empowerment (Meneg-PP), National Family Planning Coordinating Board (BKKBN), the Indonesian Society of Obstetrics/Gynecology (POGI), the Indonesian Midwifery Association (IBI), the National Clinical Training Network, local NGOs, and donor partners such as the WHO. The MNH Program was implemented primarily in the provinces of West Java and Banten, which have a combined population of 42 million people. Data from the annual health profile indicate that as of 1998 there were 5,772 *bidan di desa* practicing in these two provinces. In addition to West Java, MNH/Indonesia worked in Jakarta, South and North Sumatra, South Kalimantan, and Nusa Tenggara Barat through its training activities for the management of bleeding in early pregnancy.

The goal of the MNH Program in Indonesia was to contribute to maternal and neonatal survival by:

- Expanding interventions to prevent and manage complications of bleeding in pregnancy and childbirth;

⁸ Population Reference Bureau. 2004. *2004 World Population Data Sheet*. Population Reference Bureau: Washington, D.C.

- Encouraging all pregnant women and families and communities to be prepared for birth and possible complications; and
- Ensuring that mothers and babies receive care from a skilled provider during pregnancy, childbirth, and the postpartum period.

BP/CR is represented by the concept of SIAGA, which means alert or ready.... The SIAGA initiative invites everyone to play a part in helping save mothers' lives.

The Program's strategy was to provide targeted interventions focusing on a comprehensive set of services in West Java. The interventions included the community, community-based providers, healthcare facilities, NGOs, and institutional and government policymakers, and were designed to be scaled up and sustained. The Program also carried out activities at the national level to help strengthen maternal and newborn care. These included the following:

- Preservice midwifery education to manage normal birth, and obstetric and newborn complications
- Postabortion care as part of emergency obstetric care
- Coalition building of *Pita Putih* (the Indonesian affiliate of the White Ribbon Alliance)
- Behavior change communications to promote BP/CR, through the SIAGA campaign
- Updating the national Making Pregnancy Safer policy in collaboration with the WHO

While community involvement in maternal health was historically strong in Indonesia, many of the earlier interventions did not reflect communities' needs. Indonesia's emerging democracy expanded community involvement from a centrally driven, message dissemination to engaging the community through the emerging civil society and NGOs. The MNH Program in Indonesia built on this foundation through its BCC component and through promotion of shared responsibility for the well-being of women during pregnancy, childbirth, and the postpartum period.

In Indonesia, BP/CR is represented by the concept of SIAGA, which means alert or ready. SIAGA is also an acronym formed from the words **SI**ap (ready), **Antar** (take, transport) and **jaGA** (stand by or guard). The SIAGA campaign invites everyone to play a part in helping save mothers' lives.

BCI ACTIVITIES

SIAGA was launched in 1999 as part of Indonesia's Mother-Friendly movement, and originally focused only on the husband (*suami*). Suami SIAGA promoted steps an expectant father could take to reduce the three major delays that affect safe motherhood: deciding to seek care, reaching a healthcare facility, and getting help once there. A suami SIAGA (alert husband) is aware that complications can arise during childbirth, so he arranges for transport before the birth occurs and helps ensure that his wife receives care at a healthcare facility.

Under the MNH Program, the SIAGA concept was expanded to include the community (Warga SIAGA), the midwife (Bidan SIAGA), and the village (Desa SIAGA). SIAGA thus became a unifying concept embodying the notion of shared responsibility, which is also a central tenet of the Indonesian value of *gotong royong*, or community help. SIAGA relied on WRA networks for event venues and dissemination of materials.

Each phrase of the comprehensive SIAGA campaign shared a common look featuring a popular singer (Iis Dahlia) as the spokeswoman, and print materials with a consistent color scheme and logo. This familiar look made SIAGA a “brand” name in safe motherhood. At the same time, each phase of the campaign had distinctive target audiences, goals, and tailored approaches:

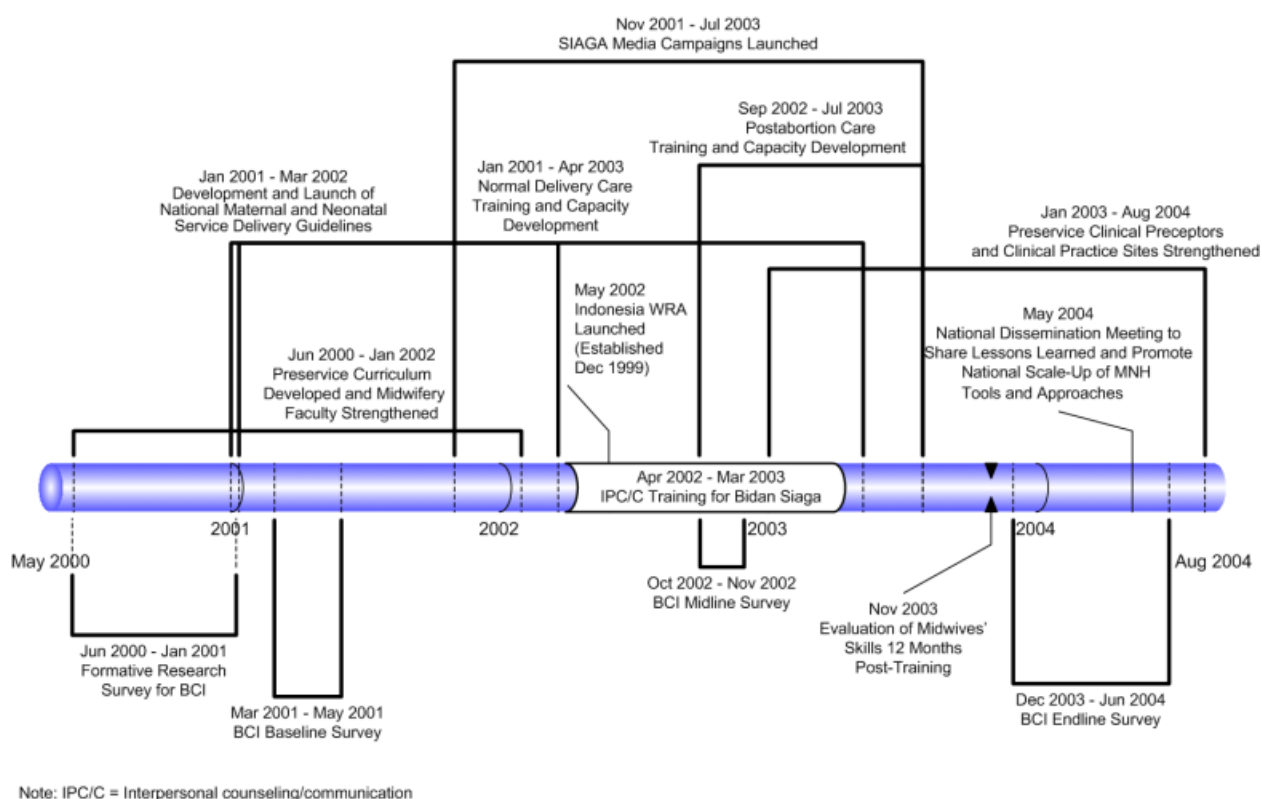
- The **Suami SIAGA** campaign (1999–2001) urged husbands to prepare in case of an emergency during childbirth. Husbands were encouraged to tell their wives to visit a midwife, to accompany their wives to antenatal care appointments, and at the time of the birth, to find out when and where to seek obstetric care, and to make plans for transportation in case of emergency.
- The **Warga SIAGA** campaign (launched in November 2001) encouraged individual community members to be alert and help arrange for transport during an obstetric emergency, donate blood, and recognize danger signs, all in the spirit of *gotong royong*. Warga SIAGA speaks to all citizens and helps establish SIAGA behaviors as a norm.
- The **Bidan SIAGA** campaign (launched in March 2002) promoted the midwife as a skilled and friendly provider and aimed to increase demand for midwifery services during childbirth. The media campaign positioned the midwife as the preferred provider during pregnancy, birth, and the postpartum period.
- The **Desa SIAGA** campaign (launched throughout 2002) encouraged villages to establish lifesaving systems for women with obstetric emergencies. Like Warga SIAGA, Desa SIAGA is grounded in the value of *gotong royong*. Desa SIAGA relied on mobilizing community resources to set up four lifesaving systems—identification of pregnant women, blood donation, financial assistance for emergency care, and transportation at the time of an emergency. A Desa SIAGA (or alert village) also has a midwife who can provide skilled care during childbirth, including referral as needed.

The Suami, Warga, and Bidan SIAGA campaigns sought to establish a normative foundation for behavior change that was national in scope. The campaigns relied on mass media—television and radio—and public relations, including events, launches, press gatherings, and karaoke contests. All media events were supported with print materials, including posters, calendars, and leaflets. An advertising agency was contracted to

assist in specific message development and representatives from various stakeholder groups, such as the Indonesian Midwives Association and the Ministry of Health, were involved as technical experts. All creative materials were pre-tested to ensure that the intended audiences (husbands, wives, midwives, and community leaders) understood and liked them.

The Desa SIAGA campaign was a grassroots campaign that encouraged villages to become alert by creating notification, transport, funding, and blood donation systems to ensure safe motherhood. The MNH Program used community participation and facilitation techniques to assist in identifying community resources and problem-solving techniques to identify how to bridge gaps. The MNH Program worked in 55 villages to implement the Desa SIAGA campaign.

Figure 4. Constellation of MNH Program-Supported Activities in Indonesia



BCI EVALUATION AND RESULTS

Evaluation design. The BCI activities were evaluated using population-based surveys conducted once before and twice after the launch of the Bidan, Warga, and Desa SIAGA campaigns. The baseline study was conducted in April 2001, a midline in December 2002, and an endline survey in February 2004.⁹

⁹ Details of the methodology and results of the surveys are included in the MNH Program report, *Measuring the Effects of the SIAGA Behavior Change Campaign in Indonesia with Population-Based Survey Results*, 2004.

The baseline study had two purposes: to assist in the design of the SIAGA campaign and to provide indicators against which to measure the impact of the BCI activities. The baseline study was conducted with 563 pregnant women, 2,229 women who had given birth in the previous 15 months, the husband of every third woman, and community-based midwives and leaders.

The final study was conducted in the same six districts as the baseline research. The selection methodology followed the same criterion used during the baseline. Care was taken to ensure that the 55 villages in the Desa SIAGA intervention were included. The endline also included a control group. The sample for the endline study included 1,782 women, 583 husbands, 200 midwives, and 360 community leaders. The baseline and endline samples were comparable in terms of age, occupation, religion, and ethnicity. However, the average age of community leaders was 52 at baseline and 43 at the endline. Another difference was that the midwives reported higher monthly expenditures at endline than baseline.

MNH Program BCI Survey Highlights: Indonesia

MNH Program Surveys:

Baseline: March–May 2001; sample size: 3,364*

Followup: December 2003–June 2004; sample size: 2,925**

Survey Results:

- 58% of women surveyed reported exposure to BCI Campaign messages:
- Spontaneous identification of severe postpartum bleeding as a danger sign***:
 - Baseline: 17% of women surveyed
 - Followup: 21% of women (10% unexposed; 29% exposed)
- Reported use of a skilled provider at birth in the previous year*:
 - Baseline: 64% of women who had given in birth previous year
 - Followup: 59% of women who had given birth in previous year (44% unexposed; 70% exposed)****

* Includes pregnant women, women with live birth in prior 15 months, husbands, community influentials, midwives.

** Includes women with live birth in prior 15 months, husbands, community influentials, midwives.

*** Differences are statistically significant at the .00 level between baseline and followup respondents and exposed and unexposed respondents.

**** Demographic and Health Survey results, presented for comparison purposes, show an increase in skilled attendance at birth for West Java and Indonesia between 1997 (31% and 43%) and 2003 (49% and 66%). The MNH Program began work in Indonesia in 1998–1999, but the MNH Program baseline survey was delayed until 2001.

Results

There were two parts to the SIAGA evaluation—an evaluation of campaign components, and an evaluation of the overall effort.

Individual Components of the SIAGA Campaign

- **Suami SIAGA.** Nearly two-thirds of the respondents (65.1%) in the baseline survey reported that they were aware of the Suami SIAGA campaign in the target districts. This reflects the effort put into the previous campaign by the MotherCare project and other safe motherhood programs. Awareness of Suami SIAGA dropped

to 53 percent by endline, which is not surprising since the campaign had ended by the time the MNH Program initiated the other campaign components. That respondents recalled Suami SIAGA 5 years after its original launch indicates the power of effective mass media campaigns and the appeal and relevance of the Suami SIAGA messages.

- **Bidan SIAGA.** At endline, 51.4 percent of the respondents reported exposure to Bidan SIAGA. Nearly all of these respondents (99.5%) recalled one or more of the campaign's specific messages, and 44 percent of the women and 49 percent of the husbands reported taking action after exposure to the messages. In addition, about one-third of the respondents reported having discussed the campaign within their social networks.
- **Warga SIAGA.** Exposure to Warga SIAGA was lower than exposure to these other campaign components, with only 27.5 percent of respondents reporting awareness. Among those exposed to Warga SIAGA activities, more than 90 percent recalled one or more of the messages and more than half of the husbands and wives exposed reported that they had taken some action as a result of their exposure. Also, the Warga SIAGA campaign elicited very high levels of interpersonal communication—60 percent of exposed respondents said that they had discussed the campaign's messages within their social networks.
- **Desa SIAGA.** More than 37 percent of the total respondents said that they considered their village to be a Desa SIAGA. Further analysis revealed that Desa SIAGA was conceptualized by respondents primarily in terms of transportation and notification, and less in terms of financial support and blood donor schemes (see **Table 3**). These findings are not surprising since transportation plans were a central focus of the Desa SIAGA campaign.

Table 3. INDONESIA: Awareness of Community Systems Characterizing a Desa SIAGA

System	Women	Husbands	Midwives	Community Influentials	Total
Transportation for pregnant women in case of emergency	50.6%	43.8%	85.5%	76.7%	57.5%
Financial support for pregnant women in case of emergency	44.3	34.6	65.0	55.0	46.6
Blood donor for pregnant women in case of emergency	41.3	30.3	71.8	58.9	45.6
Notification for pregnant women to get a quick response in case of emergency	69.9	55.7	80.3	71.7	68.9

Endline: Women—605; Husbands—185; Midwives—117; Community Influentials—180; Total—1,087

The Overall SIAGA Campaign

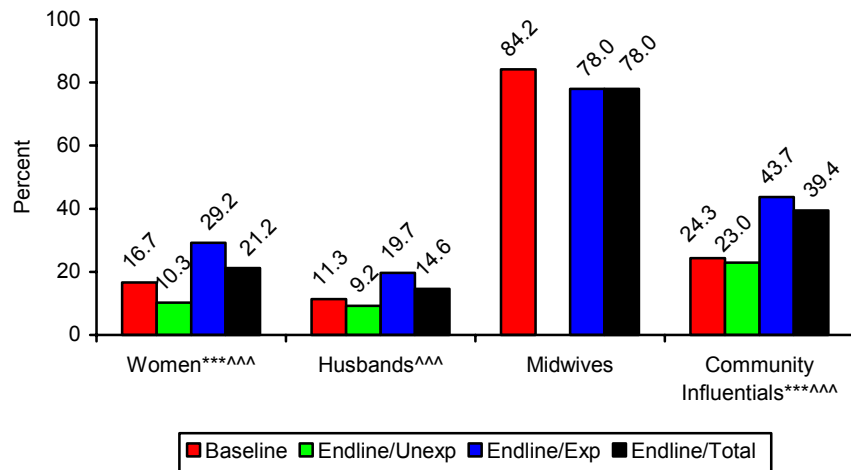
A composite variable was created that allowed researchers to analyze the impact of the SIAGA campaign as a whole. Overall, more than 60 percent of the respondents were exposed to the campaign. Awareness levels were higher in SIAGA villages (83%) than in “control” villages (53%). Note that these villages were not “controls” in the experimental research design sense, because there was a generally high level of mass media carrying the campaign messages across all of West Java. An overwhelming majority of respondents reported understanding the messages and demonstrated high levels of recall. Nearly three-fourths of the respondents reported having used information learned through the SIAGA campaign.

Impact on Knowledge and BP/CR

The evaluation asked about specific issues addressed during the campaign. Highlights of these results include:

- **Knowledge of danger signs during pregnancy.** There were some decreases from baseline to endline in spontaneous reports by respondents of bleeding as a danger sign during pregnancy (see **Figure 5**). However, at endline, women exposed to SIAGA had higher levels of awareness (41%) than those not exposed (16%) that bleeding was a danger sign. This difference was statistically significant.

Figure 5. INDONESIA: Knowledge of Severe Bleeding as a Danger Sign during the Postpartum Period, by Survey and Exposure



*** Significant at the .00 level between baseline and endline respondents.

^^ Significant at the .00 level between exposed and unexposed respondents.

Baseline: Women—2,269; Husbands—741; Midwives—202; Community Influentials—152

Endline Unexposed: Women—758; Husbands—283; Midwives—0; Community Influentials—74

Endline Exposed: Women—1,024; Husbands—300; Midwives—200; Community Influentials—286

Endline Total: Women—1,782; Husbands—583; Midwives—200; Community Influentials—360

- Knowledge of danger signs during childbirth.** There were only slight differences from baseline to endline in knowledge of severe bleeding, prolonged labor, and retained placenta as danger signs during childbirth. There were, however, statistically significant differences in the awareness levels between exposed and unexposed respondents, with exposed respondents demonstrating higher awareness of these signs. Severe bleeding was better known than the other two danger signs.
- Knowledge of danger signs during the postpartum period.** There was a statistically significant increase in awareness among all respondents (except midwives) that severe bleeding in the postpartum period is a danger sign. (Midwives demonstrated high awareness of this danger sign at baseline.) Those exposed and those in the SIAGA villages were more likely than those not exposed to the campaign and those in control villages to be aware of this factor. For example, 29 percent of women in the exposed group knew that severe bleeding was a danger sign compared to just 10 percent in the unexposed group.

One troubling finding was that, at the end of the campaign, more than 20 percent of midwives did not spontaneously identify postpartum bleeding as a danger sign. Since severe postpartum bleeding is the number one killer of new mothers in Indonesia, this finding demonstrates a need for further effort in this area.

- **Arrangements for safe childbirth.** There were statistically significant increases from baseline to endline among women and husbands regarding knowledge of arrangements in their communities to facilitate safe childbirth. Those in the unexposed groups, however, were less likely than the exposed respondents to report knowing about such arrangements. Among the four recommended plans of action (transportation, funding, blood donation, and notification about pregnant women), awareness was highest for notification about pregnant women. Changes in awareness among exposed groups were significantly greater than among unexposed groups, suggesting that much of the difference can be attributed to the SIAGA campaign.
- **Number of antenatal care visits.** Women exposed to the campaign were significantly more likely than those not exposed to report making four or more antenatal care visits.
- **Type of assistance during childbirth and place of childbirth.** The SIAGA campaign had a positive impact on skilled attendance at childbirth (see **Table 4**). Fewer women and husbands reported using a TBA at the end of the study than at baseline. Furthermore, those women exposed to SIAGA messages reported higher use of a skilled provider (70%) than did those who were not exposed (44%). This difference is statistically significant.

Hospital births increased from 6 percent at baseline to 9 percent at the end of the study. Also encouraging was that fact that those exposed to the SIAGA campaign were more likely to have given birth at the midwife's practice (instead of at home) than those unexposed (34% compared to 18%) and less likely to have given birth at home (49% of exposed women vs. 72% of women not exposed). These differences are also statistically significant.

Table 4. INDONESIA: Percentage Distribution of Women and Husbands, by Type of Assistance during Childbirth

Type of Assistance	Women				Husbands			
	Base-line	Endline			Base-line	Endline		
		Exp.	Unexp.	Total		Exp.	Unexp.	Total
Doctor	1.1%	1.1%	0.7%	0.9%	1.4%	2.0%	1.1%	1.5%
Obstetric specialist	4.4	7.8	3.4 ^{^^}	6.0*	4.5	6.7	3.9	5.3
Midwife puskesmas	18.7	8.9	5.9 [^]	7.6***	18.6	11.3	6.0 [^]	8.8***
Village midwife	21.6	22.9	17.8 ^{^^}	20.7	21.5	26.7	17.3 ^{^^}	22.1
Private midwife	20.5	29.2	16.4 ^{^^}	23.7*	21.6	29.0	13.1 ^{^^}	21.3
Traditional birth attendant	44.6	27.4	54.4 ^{^^}	38.9***	44.7	20.3	55.5 ^{^^}	37.4**

All categories above except traditional birth attendant are considered skilled providers.

* Significant at the .05 level between baseline and endline respondents. ** Significant at the .01 level between baseline and endline respondents. *** Significant at the .00 level between baseline and endline respondents.

[^] Significant at the .05 level between exposed and unexposed endline respondents. ^{^^} Significant at the .01 level between exposed and unexposed endline respondents. ^{^^} Significant at the .00 level between exposed and unexposed endline respondents.

Baseline N: Women—2,269; Husbands—741

Endline N: Women Exposed—1,024; Women Unexposed—758; Women Total —1,782

Endline N: Husbands Exposed—300; Husbands Unexposed—283; Husbands Total—583

The differences found between baseline and endline and between exposed versus unexposed underscore the success of the entire SIAGA campaign. Members of SIAGA villages were more likely to report exposure to the campaign and positive actions than those residing in non-targeted villages.

Also encouraging were the high levels of reported recall connected to reported action. This indicates that the messages were perceived as clear and relevant to the audiences' lives. Also, the fact that 50 percent of respondents reported related interpersonal communication indicates that SIAGA sparked active interest and discussion among social networks, and thus is likely an important contributor to the high level of diffusion of SIAGA.

NEPAL: CARE, SHARE, PREPARE

Anuja fingers the keychain the midwife gave her and looks at the pictures about childbirth. So far, she thinks, her labor is going well. She asks her husband to call the local maternal and child health worker, who has agreed to attend her during the birth. Her mother-in-law checks on her and sits with her to wait.

PROGRAM OVERVIEW

Nepal: MNH Program Context

National Population:
24.7 million¹⁰

*National Maternal
Mortality Ratio:*
539 per 100,000 live
births

MNH Program Area:
Lalitpur and Baglung
districts

In 1998 the Government of Nepal conducted a national Maternal Mortality and Morbidity Study, which gathered data about maternal and neonatal health conditions in the country. This study found the maternal mortality rate to be 539 per 100,000 live births, one of the highest in South Asia. Factors that contribute to this high rate include the economic, geographic, and cultural conditions in the country. Less than 10 percent of births take place at a health facility and 87 percent take place without a skilled provider.

The MNH Program began in 1999 following the Nepali government's development of a Review, Recommendations, and Action Plan, which identified programmatic gaps in maternal health services and assistance and recommended strategic areas to address. In subsequent years and especially recently, however, the Maoist insurgency that is active to varying degrees in rural Nepal and Katmandu has created numerous obstacles for all parties working toward improvements in safe motherhood.

The goal of the MNH Program in Nepal was to help improve maternal and neonatal survival by participating in and supporting the government's efforts to:

- Promote the adoption of appropriate maternal and neonatal health behaviors, and
- Increase access to and use of quality maternal and neonatal health services.

The MNH Program worked toward this goal through three main program components—**policy**, to achieve a more focused and coordinated policy environment for safe motherhood; **quality of services**, to improve maternal and neonatal health services in facilities throughout the country; and **access and demand**, to increase awareness of safe motherhood issues and use of services.

The MNH Program worked in close collaboration with government partners, other donors, international organizations and NGOs, and the private sector to develop tools and approaches that could be scaled up

¹⁰ Population Reference Bureau. 2004. *2004 World Population Data Sheet*. Population Reference Bureau: Washington, D.C.

throughout the country. The work of the Program in Nepal was based on a network of national and local-level partnerships that were established so that the MNH Program could complement and build on the work of other safe motherhood stakeholders. The Program developed improved tools, curricula, materials, and standards for implementation by government agencies at the national level and by international and local NGOs at the district and community levels.

In the policy arena, the MNH Program supported the Family Health Division within the Ministry of Health in initiating a Safe Motherhood Subcommittee. This committee is a key focal point for the development and coordination of national safe motherhood policies. The major marker of the committee's success was the development of the model for additional subcommittees for child health, family planning, and adolescent health. The MNH Program also implemented a number of special topic meetings and supported the implementation of a new study on volunteerism, focusing on female community health volunteers.

To help improve the quality of services, the MNH Program developed the Patan Hospital Birthing Center as a midwifery inservice training site in 2001. A second training site has been strengthened as well. The Program also provided Clinical Skills Standardization training to 79 participants and followed up with the graduates to assess their knowledge and competency after they returned to their job sites. Retention of knowledge and skills was found to be high, and a review of facility records found improvements in practices at the facility level, including reduced episiotomy rates, use of the WHO modified partograph, active management of the third stage of labor, and improved newborn care.

The MNH Program also developed a job aid for community-based maternal and child health workers (MCHWs). Results of a pilot-test of the product indicate that approximately 85 percent of the MCHWs used the tool, most commonly for active management of the third stage of labor and management of prolonged labor. A total of 1,800 copies of the job aid were printed in Nepali to meet the needs of MCHWs through 2006.

To increase access to and demand for high-quality maternal and neonatal health services, the MNH Program supported the National Health Education, Information and Communication Centre (NHEICC) and the Ministry of Health in its efforts to develop and implement a multi-level behavior change strategy. Called the SUMATA initiative (SUMATA is an acronym formed from the words for "care," "share," and "prepare" and is also an auspicious word for "mother" in Sanskrit), it helped define safe motherhood as a social issue rather than a purely medical problem, and highlighted the need for shared responsibility for safe birth. One partner said, "SUMATA is like the brand name for safe motherhood in Nepal."

BCI ACTIVITIES

SUMATA...helped define safe motherhood as a social issue rather than a purely medical problem.

The SUMATA initiative was designed in line with the principles embodied in the national IEC/BCI strategy, which focused on the responsibility that all members of the family and community share to ensure safe motherhood. SUMATA addresses husbands and mothers-in-law, calling on them to **care** for their wives/daughters-in-law during pregnancy, birth, and the postpartum period; to **share** love, information, and the pregnant woman's workload; and to **prepare** for childbirth and any complications that might occur. In districts with upgraded emergency obstetric care services, SUMATA was expanded to include complication readiness, recognition of danger signs, and seeking emergency care if needed. Pregnant women, other family members, community leaders, and community-based health workers were also part of the intended audience.

SUMATA is a multi-layered, integrated initiative, which uses mass media, community-based media, and interpersonal communication to disseminate safe motherhood messages in a complementary and reinforcing manner. The specific mass media activities implemented under the SUMATA initiative included radio spots, dramas and jingles, print materials, street theater, and a television drama that aired in July 2003. These materials reached a wide audience—some of the radio dramas were broadcast in local languages via regional and community radio stations. More than 54,000 people watched the 92 performances of the SUMATA street drama in two districts, and more than 40,000 posters and banners were distributed in 27 districts.

In addition to the mass media products, the MNH Program developed the *Jeevan Suraksha* (the Birth Preparedness Package or BPP), a community mobilization toolkit designed to help communities come together around BP/CR. The BPP provides information about the recommended actions that should be taken at each stage of a normal pregnancy and birth, identifies danger signs that indicate possible complications, and encourages financial planning for normal births and for complications that might occur. It also helps community mobilization workers and government health workers address social issues related to caring for a pregnant woman within her family. The BPP specifically addresses the two delays that prevent a woman from getting care in a timely manner—delays in seeking care and delays in getting to a health facility—by empowering women and their families to understand, demand, and gain access to the basic healthcare services they need in order to give birth safely, whether at home or at a health facility. The BPP was designed to build on the messages developed under the IEC/BCI strategy and complement the interpersonal communication component of SUMATA.

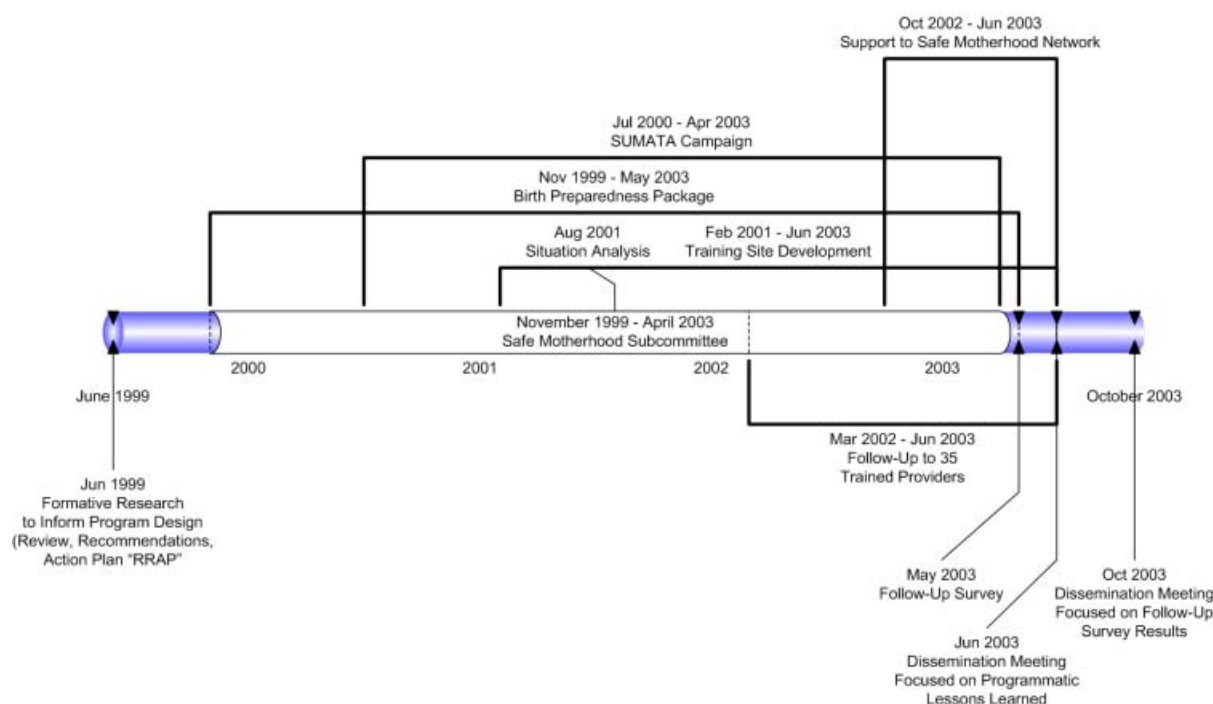
The BPP includes a flipchart with information about care during pregnancy and childbirth, danger signs, financial and other preparations

needed in the event of an emergency, and newborn care. Pregnant women are given a miniature replica of the flipchart on a key chain to help remind them of key messages. The kit also includes guidelines for implementers, training curricula, and monitoring tools. The BPP was designed for implementation through the government health system, and includes materials for each level, to ensure consistency throughout the healthcare system and to promote linkages between communities and their local health services. Workers who counsel pregnant women and their families use the materials as the basis for discussing social, financial, and healthcare issues related to pregnancy and childbirth.

SUMATA was implemented in two phases. The first phase focused on preparing the audience at the national level for safe motherhood messages by highlighting pregnancy and birth as special conditions. The second phase expanded the theme of care, share, and prepare at the national level and also incorporated messages about complications and seeking emergency treatment in areas where it is available.

One limitation of SUMATA was its short implementation phase. The second phase of the initiative was implemented for only 3 months (February–April 2003) before the followup survey was conducted, and some of the activities, such as the television drama, were implemented after the survey. There are several reasons why implementation was delayed. The primary reason was the difficulty in gaining consensus from all stakeholders concerning the final images and messages contained in the print materials. It took time to make sure all the partners approved and felt a sense of ownership of the final materials. As a result of the collaborative and participatory approach used to develop SUMATA, however, key stakeholders embraced the initiative and rolled it out in many districts throughout the country.

Figure 6. Constellation of MNH Program-Supported Activities in Nepal



BCI EVALUATION AND RESULTS

Evaluation design. SUMATA was evaluated via pre- and post-campaign surveys.¹¹ The baseline situation analysis was conducted in August 2001 and the followup survey in May 2003 in two districts, Baglung and Lalitpur. The baseline was also conducted in a third district, Kailani, but this district was dropped from the followup because Program activities could not be implemented due to political instability. The objectives of the research were to assess changes in knowledge, attitudes, approval, intentions, practices, and advocacy of BP/CR through the use of the BPP among women, families, and community leaders; to examine perceptions about plans for transport and financing in case of an obstetric emergency; and to obtain information on exposure to safe motherhood and birth preparedness messages.

Initially the SUMATA initiative was targeted at rural areas in Nepal, and the baseline was conducted in rural areas only. However, given the political instability in Nepal during the implementation period, many SUMATA activities (especially local activities like street theater) could be conducted only in urban areas for security reasons. These areas were surveyed, along with rural areas, during the followup. However, the evaluation results presented here compare only the rural samples because the baseline did not have a comparable urban sample.

¹¹ Details of the methodology and results of the surveys are included in the MNH Program report, *Measuring the Effects of Behavior Change Interventions in Nepal with Population-Based Survey Results*, 2004.

The survey samples included pregnant women, husbands, family members (including mothers-in-law), health workers, and community leaders. The followup survey also included women who had given birth in the previous 3 months. The respondents to both surveys were similar in terms of age, education, ethnicity, socioeconomic status, and marital status. The sample sizes were 1,194 people for the baseline survey and 1,208 in the followup.

The evaluation study had several limitations. First, the intervention period was really too short (3 months) to bring about any reliably measurable behavior change. In all likelihood, if the activities had been going on for a longer period of time, the results would be more robust. Also, other agencies and partners have been active in safe motherhood activities in the same geographical areas where the SUMATA initiative was implemented. Therefore it is difficult to attribute the change measured solely to SUMATA. The short duration of the initiative and the presence of other interventions do suggest explanations for some of the results reported. Even with limitations, however, the SUMATA initiative showed some promising results.

MNH Program Survey Highlights: Nepal

MNH Program Surveys:

Baseline: August 2001; sample size: 1,194*

Endline: May 2003; sample size: 1,208*

Survey Results:

- 52% of women surveyed reported exposure to BCI Campaign messages
- Spontaneous identification of severe postpartum bleeding as a danger sign:
 - Baseline: 62% of women surveyed
 - Followup: 59% of women surveyed (42% unexposed; 76% exposed)
- Reported use of skilled provider at birth in previous year:
 - Baseline: 15% of women who had given birth in previous year
 - Followup: 37% of women who had given birth in previous year (42% unexposed**; 33% exposed)

* Includes women, husbands, family members, health workers, and community leaders.

** Possible explanations for this finding include a small sample size and systematically higher levels of education and SES among unexposed respondents than exposed respondents. These factors are likely to contribute to higher use of skilled attendants, *ceteris paribus*.

Results of the Overall SUMATA Initiative

Exposure. The followup survey found that SUMATA reached its intended audience. A little less than half (49%) of the respondents in the target districts were exposed to SUMATA.¹² More than 48 percent of the pregnant women and 60 percent of women who had a live birth in the previous 3 months reported exposure. Of those exposed, 41 percent were exposed to SUMATA mass media and local media messages, and 21 percent were counseled about BPP using *Jeevan Suraksha*.

¹² Exposure was self-reported.

Awareness and comprehension. An overwhelming majority (95%) of those exposed to SUMATA said that they understood the messages and were able to list specific messages.

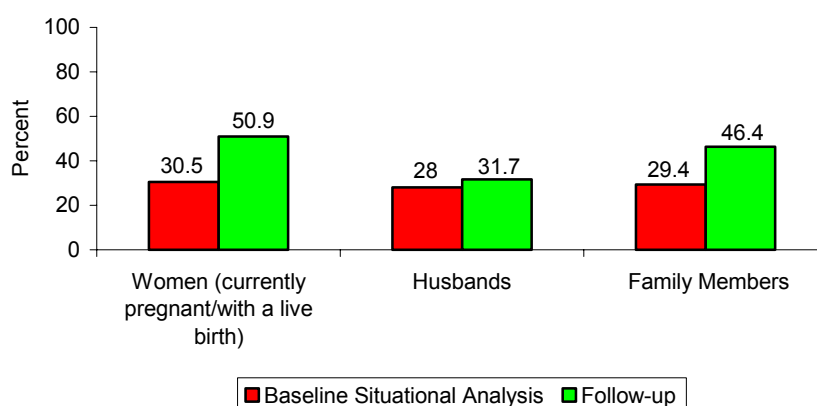
Action. A significant proportion (79%) of those exposed to SUMATA said that they had used the information in the campaign. Eighty-four percent of the women—80 percent of the pregnant women and 90 percent of those with a live birth in the previous 3 months—said they used the information they had learned. About 80 percent of husbands and 70 percent of the family members said that they had used the information as well. The most common actions reported were going for antenatal care visits, sharing a pregnant woman’s workload, and saving money. Not surprisingly, those exposed to the BPP via interpersonal counseling were more likely to take action than those exposed to the media messages alone.

Changes in Knowledge, Opinions, and Attitudes

The SUMATA initiative addressed specific health issues related to pregnancy and childbirth:

- Knowledge of danger signs during pregnancy.** There was a substantial increase in awareness of vaginal bleeding as a danger sign during pregnancy among all the respondents (see **Figure 7**). The pregnant women and those with a live birth in the previous 3 months had the largest increase—from 31 percent to 51 percent. Awareness among family members also increased. The increase in awareness of this danger sign was greater for those exposed to SUMATA than for those not exposed.

Figure 7. NEPAL: Knowledge of Bleeding as a Danger Sign during Pregnancy, by Survey



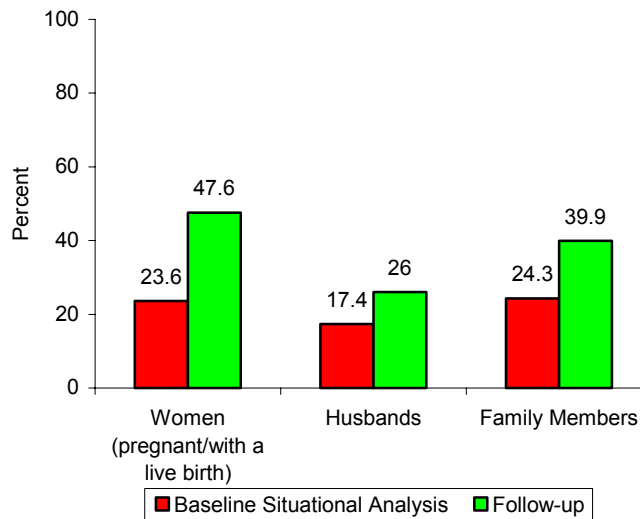
Baseline: Women (pregnant)—390; Husband—236; Family Members—296

Followup: Women (pregnant/with a live birth)—424; Husbands—246; Family Members—306

- Knowledge of danger signs during childbirth.** More respondents at followup than at baseline knew that severe vaginal bleeding during

childbirth was a danger sign (see **Figure 8**). Again, the greatest increase was among women—from 24 percent to 48 percent. The increase in awareness was greater among those exposed than among those not exposed to SUMATA. Surprisingly, for the danger sign of prolonged labor, awareness of prolonged labor as a danger sign decreased among all respondents. The decrease among those exposed to SUMATA was less than for those not exposed. This decrease may be due in part to variations in the messages appearing in different materials, and it underscores the need for consistency in messages throughout a campaign.

Figure 8. NEPAL: Knowledge of Bleeding as a Danger Sign during Childbirth, by Survey



Baseline: Women (pregnant)—390; Husband—236; Family Members—296

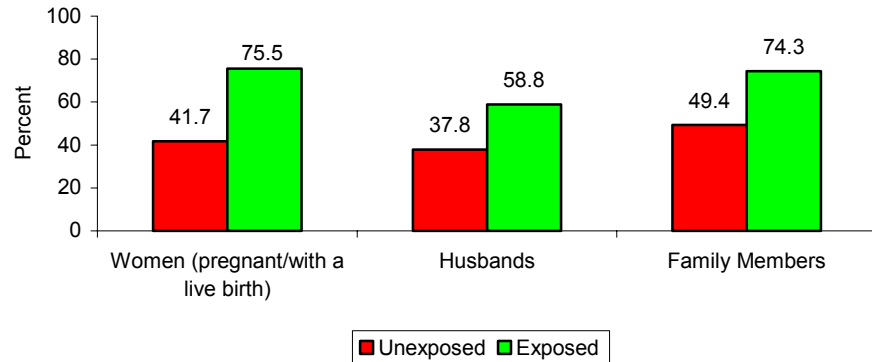
Followup: Women (pregnant/with a live birth)—424; Husbands—246; Family Members—306

Similarly, there was no significant change in awareness between the baseline and followup surveys in recognition of retained placenta as a danger sign, and surprisingly, family members who were exposed to SUMATA were less likely to know about this problem than were those who were not exposed. The small numbers of those aware of the danger sign and the relatively short duration of the SUMATA activities before the followup may explain some of these anomalous results.

- **Knowledge of danger signs during the postpartum period.** The SUMATA initiative focused primarily on severe vaginal bleeding and high fever as danger signs during the postpartum period. There was little change in awareness of severe bleeding as a danger sign among women and husbands, although awareness did increase among family members (53% to 61%). A majority of women (more than 60%) do recognize this danger sign, which is reassuring since postpartum hemorrhage is the leading cause of maternal death in Nepal. Awareness among those exposed to SUMATA was higher than

among those not exposed (see **Figure 9**). A similar pattern was found for knowledge of high fever (36% for exposed women; 20% for unexposed).

Figure 9. NEPAL: Knowledge of Bleeding as a Danger Sign during the Postpartum Period, by Exposure



Unexposed: Women (pregnant/with a live birth) —204; Husbands—127; Family Members—166
Exposed: Women (pregnant/with a live birth) —220; Husbands—119; Family Members—140

- **Knowledge of danger signs in the newborn.** Knowledge of fast or difficult breathing in a newborn increased significantly among women and family members and marginally among husbands. Those exposed to SUMATA were more aware of this danger sign than were those not exposed.
- **Arrangements for safe childbirth.** There were significant increases from baseline to endline regarding knowledge of community arrangements to facilitate safe childbirth, particularly transportation and funding. Surprisingly, there were also increases among unexposed respondents, which make it unlikely that the increases observed can be attributed to SUMATA. Since implementing transportation and funding plans are not an emphasis of SUMATA, and there are other organizations focusing on these issues, it is likely that interventions other than SUMATA are responsible for this result.
- **Number of antenatal care visits.** At followup, most respondents said that they (or their family member who was pregnant or had recently given birth) had made four or more antenatal care visits. There was no difference between exposed and unexposed groups.
- **Type of assistance during childbirth and place of childbirth.** The percentage of respondents who gave birth in a hospital and the percentage who used a skilled provider increased from baseline to followup. However, unexpected trends were observed: women exposed to SUMATA were more likely than unexposed women to have given birth at home with a maternal and child health worker or a community provider, whereas unexposed women were more likely

to give birth with a doctor in attendance and marginally more likely to give birth at home with no skilled assistance (46% for unexposed women; 41% for exposed women). These observations are probably due to the small sample size, other safe motherhood initiatives being implemented in the two districts at the same time as SUMATA, or the level of education and socioeconomic status of the unexposed group.

Other Evaluation Activities

Some of the individual SUMATA activities were evaluated as well. Post-performance questionnaires administered after performances of the street dramas showed that 100 percent of the respondents correctly understood the messages, and more than 80 percent were able to give correct information about birth preparedness. Interviews conducted after the broadcast of the television drama *Ashaal Logne* (“Good Husband”) indicated that 42 percent of respondents had learned “a lot” from the drama and 56 percent had learned “somewhat.” Respondents reported that they learned that a daughter-in-law must be treated well (64%) and that the husband’s presence during childbirth is important (27%). As a result of this success, World Vision will sponsor an additional national broadcast of the drama.

Overall, it appears that SUMATA did have a positive effect on its intended audiences. This is noteworthy since the implementation period before the followup survey was quite short. Although some data are mixed or unexpected, the initiative reached a considerable proportion of its intended audiences and achieved some encouraging results.

DISCUSSION

Several conclusions can be drawn from the MNH Program's investments in Behavior Change Interventions in the four countries studied:

In the four countries examined in this report, knowledge of birth preparedness, danger signs, and antenatal care attendance all increased after an integrated campaign.

Demonstrating the impact of Behavior Change Interventions is an increasingly serious challenge for programs that must operate in an international environment fraught with emergencies and crises and that must compete for scarce resources. Monitoring and evaluation (M&E) activities require resources and commitment across the board: financial, human (technical, management, and administration), and strategic (programmatic design and planning), but monitoring and evaluation of BCI is a particularly challenging, and thus expensive, task. Surveys to collect population-based statistics are relatively expensive, but the information available in a health management system is typically far too poor in quality to be used in M&E or programmatic decision-making (e.g., determining which activities are producing results and which activities need to be reconsidered). As the MNH Program experiences show, it is frequently difficult to implement formative research or followup surveys within the most desirable timeframe, and sometimes survey results or trends require more time for analysis and consideration than the programmatic calendar (or budget) will allow. Progress will be greatest where programs are innovative and adaptive in their M&E strategic design and implementation plans, and where donors are flexible and supportive of pragmatic but technically appropriate approaches as M&E continues to evolve under these constraints.

The BP/CR Matrix is a useful framework for addressing all audiences in a simultaneous, integrated way. The messages it contains are action oriented and can be evaluated. In the four countries examined in this paper, knowledge of birth preparedness, danger signs, and antenatal care attendance all increased after an integrated campaign. Skilled attendance at birth in three countries—Burkina Faso, Guatemala, and Nepal—increased among women exposed to Program activities. In Indonesia, there was not a statistically significant increase in skilled attendance at birth measured during the Program implementation period, but there was an increase—from 31 percent to 49 percent—measured by the Demographic and Health Surveys conducted in West Java in 1997 and 2003.

There is often a dynamic tension between the clinical and BCI components of a safe motherhood program. Timing is crucial to the success of an integrated program. To avoid mobilizing communities into poor quality services, clinical improvements such as provider training and facility upgrades must be in place before communication efforts are fully underway. In Guatemala, for example, few health facilities were able to achieve accreditation—a criteria for mass media promotion. Thus, few communities received a full complement of activities. Since community

mobilization and media development take time, however, they must be initiated before clinical improvements are complete. In the best situation, both are ready at the same time; in reality, one is often ready before the other.

Mass media can be an important tool in safe motherhood

programs. Mass media can extend reach, create demand, reinforce community mobilization messages, prepare communities for community mobilization activities, and encourage women and families to take action if their communities do not have transport, funding, or blood donation systems in place. Most important, mass media can help to define safe motherhood as a social issue, not just a medical one.

Given the investment required to effectively use mass media, programs should include creative professionals in creating memorable, behavior-changing media, especially in a cluttered media environment. The SIAGA campaigns in Indonesia were able to break through the clutter in what has been described as the second most cluttered media environment in the world (after Japan).¹³ This success is evidenced in the recollection of survey respondents of the Suami SIAGA campaign 5 years after it was first launched.

Building a brand name for safe motherhood can extend the concept of BP/CR.

A brand gives a unique style and identity to a product or service. It can also serve as shorthand or as a nickname for a complex idea. In both Indonesia and Nepal, a brand identity was created to promote and integrate safe motherhood messages to various audiences. It also allowed various stakeholders to rally together with one purpose. In both countries, this approach proved highly successful. In Indonesia, a village could proudly call itself a Desa SIAGA once it met the SIAGA criteria. In Nepal, a community member proudly described SUMATA as the brand for safe motherhood in Nepal. Indeed, many organizations used the SUMATA materials in their safe motherhood initiatives.

The greatest successes occur where advocacy at both the community and individual levels is integrated with the design and implementation of behavior change communications, and where integration is a priority for both program planners and stakeholders.

For maximum impact, health messages must be consistent and broadcast over a fairly long period of time. Changing behavior takes time. Individuals go through various stages as they move from knowledge to action. In Nepal, the intervention period was too short for individuals and communities to first internalize the SUMATA messages and then act on them. The small improvements and anomalies in the evaluation results reflect the short timeframe. In addition, messages must be consistent in all materials throughout the campaign period. For example, messages about the length of prolonged labor varied among different materials produced in Nepal. This may partially explain the drop in overall awareness of prolonged labor noted between baseline and followup.

¹³ Ogilvy Public Relations 2002.

In other cases, there is little reported change because the campaign emphasized certain messages over others. For example, since postpartum hemorrhage is the number one killer of mothers in all of the countries examined, program planners emphasized this danger sign. Other danger signs, such as fever, did not receive the same attention. Thus, it is not surprising that awareness of fever actually declined among women in Indonesia from baseline to endline, and that there was little difference among exposed and unexposed women. This result is probably also due to the very small number of respondents who reported awareness at baseline or endline. This danger sign could be emphasized in a future campaign, after knowledge of severe bleeding is well ingrained.

Community mobilization activities are often hard to get started and take longer than anticipated. Grassroots initiatives require intensive investments of labor, resources, and time. In the four countries examined, initiatives to set up transport, funding, and blood donation systems proceeded slowly. Getting individuals to take action to prepare for birth and possible complications—specifically putting aside money and have a transportation plan—was less difficult. Despite the slow pace, community mobilization is necessary to bring about significant social change. The greatest successes occur where advocacy at both the community and individual levels is integrated with the design and implementation of behavior change communications, and where integration is a priority for both program planners and stakeholders. If these investments are not made at the community level, then there is little chance that sustainable change will occur at any level.

Community mobilization can effectively address delays in seeking care and reaching care by supporting identification of danger signs and complications, transport systems, and savings. The four country case studies highlighted here present communities that are now more committed to recognizing complications and preparing for possible problems by identifying transport and saving money in advance. In Burkina Faso, for example, respondent reports of saving money as part of birth planning increased significantly from baseline to followup. In Guatemala, women exposed to the MNH Program's Behavior Change Interventions were significantly more likely to have made a plan for transportation in case of an obstetrical emergency than those not exposed. In all four countries, respondents exposed to MNH Program interventions recognized severe bleeding as a critical danger sign during the postpartum period.

White Ribbon Alliances can powerfully support and mobilize stakeholders for action and should be linked to BCC efforts to help spread safe motherhood messages. Alliances bring together a range of stakeholders, facilitating their work together to achieve a common goal. National-level WRAs in Burkina Faso, Indonesia, and Nepal brought together all of the players involved in safe motherhood activities, and provided a structure that encouraged them to collaborate, share, optimize resources, and avoid redundant efforts. Local and national events help

keep maternal health in the public spotlight and generate momentum during campaigns. Challenges remain in capturing the results of unique and customized community mobilization events that are community-driven, but span across communities and reach the national level. To collect significant and meaningful information from these communities will require creative adaptation of early monitoring efforts.

In summary, the MNH Program, through a framework of shared responsibility for birth preparedness and complication readiness, has contributed to the body of evidence about what works to increase knowledge and action at the community level for improved maternal and newborn health. Commitment to turn the tide of maternal and newborn mortality is evident among policymakers, providers, communities, families, and women. Pulling these groups and individuals together through social and community mobilization approaches as well as targeted behavior change communication does make a difference. Finally, linking these efforts with and mobilizing communities to use improved facility-based care is critical. Although much remains to be done, much has been learned. The next challenge will be for programmers to learn from these experiences and apply the lessons learned to future safe motherhood programming.

APPENDIX

BIRTH PREPAREDNESS AND COMPLICATION READINESS: A MATRIX OF SHARED RESPONSIBILITY

What Is Birth Preparedness and Complication Readiness?

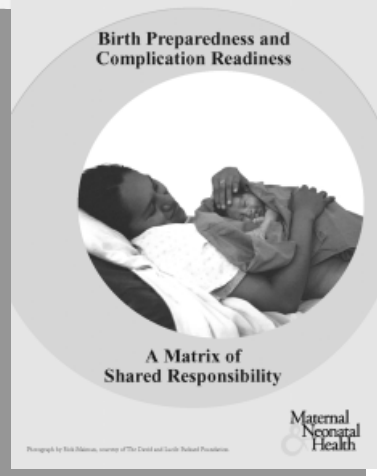
Women and newborns need timely access to skilled care during pregnancy, childbirth, and the postpartum/newborn period. Too often, however, their access to care is impeded by delays—delays in deciding to seek care, delays in reaching care, and delays in receiving care.¹⁴ These delays have many causes, including logistical and financial concerns, unsupportive policies, and gaps in services, as well as inadequate community and family awareness and knowledge about maternal and newborn health issues. For example:

- **Delays in deciding to seek care** may be caused by failure to recognize signs of complications, failure to perceive the severity of illness, cost considerations, previous negative experiences with the healthcare system, and transportation difficulties.
- **Delays in reaching care** may be created by the distance from a woman's home to a facility or provider, the condition of roads, and a lack of emergency transportation.
- **Delays in receiving care** may result from unprofessional attitudes of providers, shortages of supplies and basic equipment, a lack of healthcare personnel, and poor skills of healthcare providers.

The causes of these delays are common and predictable. However, in order to address them, women and families—and the communities, providers, and facilities that surround them—must be prepared in advance and ready for rapid emergency action.

Birth Preparedness and Complication Readiness (BP/CR) is the process of planning for normal birth and anticipating the actions needed in case of an emergency. Responsibility for BP/CR must be shared among all safe motherhood stakeholders—policymakers, facility managers,

BIRTH PREPAREDNESS AND COMPLICATION READINESS MATRIX						
PREGNANCY	FACILITY	PROVIDER	COMMUNITY	FAMILY	WOMAN	
<p>Ensure an environment that supports the woman's decision to seek care during pregnancy, childbirth, and the postpartum/newborn period.</p> <p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	<p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	<p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	<p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	<p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	<p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	
LABOR AND CHILDBIRTH	FACILITY	PROVIDER	COMMUNITY	FAMILY	WOMAN	
<p>Ensure an environment that supports the woman's decision to seek care during pregnancy, childbirth, and the postpartum/newborn period.</p> <p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	<p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	<p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	<p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	<p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	<p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	
POSTPARTUM AND NEWBORN	FACILITY	PROVIDER	COMMUNITY	FAMILY	WOMAN	
<p>Ensure an environment that supports the woman's decision to seek care during pregnancy, childbirth, and the postpartum/newborn period.</p> <p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	<p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	<p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	<p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	<p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	<p>Ensure that skilled care is available and accessible to all women, regardless of their location, social status, or financial resources.</p> <p>Ensure that women have the information and resources they need to make informed decisions about their care.</p> <p>Ensure that women have the support and encouragement they need to seek care when they need it.</p> <p>Ensure that women have the resources they need to receive care when they need it.</p>	



¹⁴Thaddeus S and D Maine. 1994. Too far to walk: Maternal mortality in context. *Social Science and Medicine* 38: 1091.

providers, communities, families, and women—because a coordinated effort is needed to reduce the delays that contribute to maternal and newborn deaths. Each stakeholder has an important role to play—from creating appropriate policies to strengthening facilities and providers to implementing effective community systems to adopting informed practices at home. Together, stakeholders can plan for the care that women and newborns need during pregnancy, childbirth, and the postpartum/newborn period, prepare to take action in emergencies, and build an enabling environment for maternal and newborn survival.

About the BP/CR Matrix

The **Birth Preparedness and Complication Readiness Matrix** delineates the roles of policymakers, facility managers, providers, communities, families, and women in ensuring that women and newborns receive appropriate, effective, and timely care. It outlines plans and actions that can be implemented by each group of stakeholders to build an enabling environment for normal and emergency care.

The BP/CR Matrix can be used in a variety of ways to introduce and reinforce the concept of BP/CR, to demonstrate and support shared responsibility and accountability for safe motherhood, and to plan appropriate safe motherhood interventions and activities. Using the matrix, advocacy groups can facilitate a process that helps stakeholders see how they influence barriers and solutions to seeking, reaching, and receiving care. Program planners can use the matrix to mobilize the necessary human and fiscal resources to adequately respond to stated needs and priorities. And healthcare providers can use the matrix as a reference to reinforce facility preparedness and to more fully understand their role and the skills required to deliver care throughout pregnancy, labor and childbirth, and the postpartum/newborn period.

The BP/CR Matrix can be used to:

Facilitate Dialogue among Safe Motherhood Partners and Stakeholders

The concept of BP/CR can be integrated into community mobilization and clinical workshops related to safe motherhood to improve communication and buy-in among stakeholders. Facilitating dialogue encourages everyone to see their part in finding solutions to the challenges inherent in implementing safe motherhood interventions. Through discussion, the BP/CR Matrix can be used to help stakeholders identify behaviors that must change at each stakeholder level. Participatory exercises using the BP/CR Matrix can be designed to:

- introduce and discuss the BP/CR concept and actions;
- encourage shared solutions to life-threatening delays;
- increase awareness of shared responsibility and the need for strategic partnerships;
- reveal barriers, such as gender, that can get in the way of effective dialogue and solutions; and
- focus on the creation and implementation of priority actions.

Facilitating Dialogue in Thailand

In Thailand, during an activity aimed at generating discussion about how to ensure that all safe motherhood stakeholders are heard, participants in a safe motherhood workshop were given the name of a stakeholder—e.g., ob/gyn, midwife, or minister of health—and were asked to represent that stakeholder throughout the exercise. Participants were then asked to recommend two interventions to improve safe motherhood, and to defend their choices. This exercise was extremely effective at pointing out barriers created by power and gender. Further, it illustrated the fact that many times, dialogue about safe motherhood does not include the voice of women, families, and communities. Without their involvement, interventions may not meet the needs of the people for which they are designed.

Guide Safe Motherhood Program Planning and Interventions

Based on behaviors and skills listed in the BP/CR Matrix, program planners can develop appropriate program interventions and activities and adapt them to local realities. Key interventions from the matrix can be made into checklists and used in facilities by providers, or by community members.

Initiating a Work Plan in China

In China, the Bazhong Rural Health Improvement Project conducted a workshop at which participants used the BP/CR Matrix to identify key interventions before, during, and after pregnancy at each stakeholder level. Participants also identified challenges facing the implementation of each of the proposed interventions and developed solutions for overcoming these challenges. Working through these challenges and solutions will help program planners and implementers construct a realistic program work plan and build awareness of the need for shared responsibility.

In addition, the matrix can be used in the performance and quality improvement process as a guide when assessing gaps in standards of care, skills and competencies of providers, and facility readiness. This assessment then provides the basis of work with program planners, decision-makers, facility managers, and providers themselves to strengthen facility-based care and link facilities to communities and households.

Finally, NGOs and government agencies can replicate and adapt the matrix and use it as a guide when advocating for important policy actions.

Assess Progress toward Improved BP/CR Awareness and Action

Program planners and managers can use the BP/CR Matrix as a participatory self-assessment tool to monitor and assess progress toward the implementation of actions and interventions on the matrix, and to identify benchmarks that indicate progress toward achievement of their goals.

Identifying Appropriate Interventions in Zambia

At a workshop aimed at forming a White Ribbon Alliance in Zambia, a chart like the BP/CR Matrix, with the names of stakeholder groups appearing at the tops of empty columns, was fixed to the wall of the meeting room. Participants in the workshop—including providers, policymakers, and community members—were divided into small groups to brainstorm the key actions needed by each stakeholder group to improve BP/CR. Groups wrote their ideas on cards and then attached them to the chart under the appropriate heading. Key actions identified included the need to improve roads, expand and strengthen education, and increase access to antenatal care. By looking at how their ideas differed from those on the BP/CR Matrix, participants were able to explore the reasons why women experience delays in seeking care and/or receiving care in Zambia, such as lack of information, the belief that women should be able to bear the pain of childbirth, and the need for better access to skilled providers. Overall, the activity helped participants recognize the need to get accurate information to families and communities and the importance of ensuring that appropriate supplies and staff are available at health facilities.

Identify and Demonstrate Policy and Advocacy Priorities

The BP/CR Matrix can be used to demonstrate to policymakers how policies affect the ability of women, families, communities, and facilities and providers to prepare for normal births and respond to obstetric and newborn emergencies. By making this information concrete and showing policymakers the responsibilities of each stakeholder group, advocates help to support provider and community demands for updated policies and protocols and improvements in access and quality.

Planning for Advocacy in India

The White Ribbon Alliance of India used the BP/CR Matrix as part of its strategic planning workshop to identify priority issues for the group's advocacy activities. Participants first divided into two groups. Using the BP/CR Matrix as a guide, each group identified two priority actions during pregnancy, labor and childbirth, and the postpartum/newborn period. Each group then read their priority actions aloud, and those identified by more than one group were noted. Five common issues were identified, which was an important first step toward reaching a common understanding about what is needed to improve BP/CR. Based on these discussions, participants used the matrix to develop a best practices guide for community leaders and other lay people. Outputs of discussions were also used to guide the development of strategic objectives for the next 2 years. As a result of the efforts of the White Ribbon Alliance in India, the Indian government adopted the BP/CR best practices guide and declared April 11, Mahatma Gandhi's wife's birthday, Safe Motherhood Day.

Develop Targeted Safe Motherhood Messages

The BP/CR Matrix can be used in the creation of safe motherhood communication messages that raise awareness among women, families, and communities about the importance of birth preparedness and complication readiness. Program leaders can develop messages to be delivered through media, drama, and other methods appropriate to low-resource settings.

Delivering BP/CR Messages in Haiti

Participants in a safe motherhood workshop in Haiti used the French version of the BP/CR Matrix when building an alliance for safe motherhood. After choosing priority interventions for each stakeholder, they designed messages based on these key interventions and discussed the best medium to use to deliver the messages to policymakers, providers, facilities, communities, families, and women. Key messages revolved around the theme of being prepared and identifying emergency transport long before an emergency arises. Participants hoped to deliver key BP/CR messages via the radio and drama on significant days such as Mother's Day.

Build Informed Demand for Maternal and Newborn Care

As empowered participants in their own healthcare, women, families, and communities expect more of providers and healthcare services. Program planners and managers can use the BP/CR Matrix as a guide in designing communication strategies to generate informed demand and plan for the resulting service delivery needs.

Building Informed Demand in Nepal

The BP/CR Matrix was used, along with Nepal's National IEC/BCC Strategy for Safe Motherhood, in the development of the SUMATA (Care, Share, Prepare) initiative, a communication initiative that encourages families to care for women during pregnancy, to share their work, and to prepare for birth. As a part of SUMATA, community mobilizers counsel pregnant women and their families to be aware of and use local health services and to make arrangements for care at birth. In doing so, their work is guided by the Birth Preparedness Package (*Jeevan Suraksha* in Nepali), which was developed using the BP/CR Matrix and is a key component of the SUMATA campaign.

The BP/CR Matrix: Pregnancy

POLICYMAKER	FACILITY	PROVIDER
<i>Creates an environment that supports the survival of pregnant women and newborns.</i>	<i>Is equipped, staffed and managed to provide skilled care for the pregnant woman and newborn.</i>	<i>Provides skilled care for normal and complicated pregnancies, births and the postpartum period.</i>
<p>Promotes health and survival for pregnant women and newborns</p> <p>Ensures that skilled antenatal care policies are evidence-based, in place and politically endorsed</p> <p>Uses evidence-based information to support systems that routinely update service delivery and cadre-specific guidelines</p> <p>Promotes and facilitates the adoption of evidence-based antenatal care</p> <p>Ensures that adequate levels of resources (financial, material, human) are dedicated to supporting antenatal care and an emergency referral system</p> <p>Encourages and facilitates participation in policy-making and resource allocation for safe childbirth and emergency referral services by communities, families, individuals and advocacy groups</p> <p>Coordinates donor support to integrate birth preparedness and complication readiness into antenatal services</p> <p>Has a national policy document that includes specific objectives for reducing maternal and newborn deaths</p> <p>Ensures that protocols are in place for clinical management, blood donation, anesthesia, surgical interventions, infection prevention and physical infrastructure</p> <p>Advocates birth preparedness and complication readiness through all possible venues (e.g., national campaigns, press conferences, community talks, local coalitions, supportive facilities)</p>	<p>Has essential drugs and equipment</p> <p>Follows infection prevention principles and practices</p> <p>Has a functional emergency system, including:</p> <ul style="list-style-type: none"> • communication • transportation • safe blood supply • emergency funds <p>Has service delivery guidelines on appropriate management during the antenatal period</p> <p>Has job aids to assist providers in performing appropriate antenatal care</p> <p>Ensures availability of a skilled provider 24 hours a day, 7 days a week</p> <p>Is gender and culturally sensitive, client-centered and friendly</p> <p>Involves community in quality of care</p> <p>Reviews case management of maternal and neonatal morbidity and mortality</p>	<p>Provides skilled antenatal care, including:</p> <ul style="list-style-type: none"> • detecting and managing complications • promoting health and preventing disease, including: <ul style="list-style-type: none"> • provision of iron/folate and tetanus toxoid • vitamin A and iodine in areas with deficiencies • presumptive treatment of malaria and worms in areas of prevalence • encourages use of bed nets • screening for and managing HIV/AIDS, tuberculosis, STDs • assisting the woman to prepare for birth including: <ul style="list-style-type: none"> • items needed for clean birth • identification of skilled provider for the birth • plan for reaching provider at time of delivery • identification of support people to help with transportation, care of children/household, and accompaniment to health facility • Complication Readiness Plan in case of emergency: emergency funds, transportation, blood donors, and decision-making • counseling/educating the woman and family on danger signs, nutrition, family planning, breastfeeding, HIV/AIDS • informing woman and family of existence of emergency funds • referring to higher levels of care when appropriate • honoring the pregnant woman's choices <p>Supports the community s/he serves</p> <p>Respects community's expectations and works within that setting</p> <p>Educates community members about birth preparedness and complication readiness</p> <p>Promotes concept of birth preparedness and dispels misconceptions and harmful practices that could prevent birth preparedness and complication readiness</p>

COMMUNITY	FAMILY	WOMAN
<i>Advocates and facilitates preparedness and readiness actions.</i>	<i>Supports pregnant woman's plans during pregnancy, childbirth and the postpartum period.</i>	<i>Prepares for birth, values and seeks skilled care during pregnancy, childbirth and the postpartum period.</i>
<p>Supports and values the use of antenatal care</p> <p>Supports special treatment for women during pregnancy</p> <p>Recognizes danger signs and supports implementing the Complication Readiness Plan</p> <p>Supports mother- and baby-friendly decision-making for normal births and obstetric emergencies</p> <p>Has a functional transportation infrastructure for woman to reach care when needed</p> <p>Has a functional blood donor system</p> <p>Has community financing plan for obstetric emergencies</p> <p>Can access facility and community emergency funds</p> <p>Conducts dialogue with providers to ensure quality of care</p> <p>Dialogues and works together with provider on expectations</p> <p>Supports the facility that serves the community</p> <p>Educates members of the community about birth preparedness and complication readiness</p> <p>Advocates for policies that support skilled healthcare</p> <p>Promotes concept of birth preparedness and dispels misconceptions and harmful practices that could prevent birth preparedness and complication readiness</p>	<p>Advocates for skilled healthcare for woman</p> <p>Supports and values the woman's use of antenatal care, adjusts responsibilities to allow attendance</p> <p>Makes plan with woman for normal birth and complications</p> <p>Identifies a skilled provider for childbirth and the means to contact or reach the provider</p> <p>Recognizes danger signs and facilitates implementing the Complication Readiness Plan</p> <p>Identifies decision-making process in case of obstetric emergency</p> <p>Knows transportation systems, where to go in case of emergency, and support persons to accompany and stay with family</p> <p>Supports provider and woman in reaching referral site, if needed</p> <p>Knows supplies to bring to facility or have in the home</p> <p>Knows how to access community and facility emergency funds</p> <p>Has personal savings for costs associated with emergency care or normal birth</p> <p>Knows how and when to access community blood donor system</p> <p>Identifies blood donor</p>	<p>Attends at least four antenatal visits (obtains money, transport)</p> <p>Makes a birth plan with provider, husband, family</p> <p>Decides and acts on where she wants to give birth with a skilled provider</p> <p>Identifies a skilled provider for birth and knows how to contact or reach the provider</p> <p>Recognizes danger signs and implements the Complication Readiness Plan</p> <p>Knows transportation systems, where to go in case of emergency, and support persons to accompany and stay with family</p> <p>Speaks out and acts on behalf of her and her child's health, safety and survival</p> <p>Knows that community and facility emergency funds are available</p> <p>Has personal savings and can access in case of need</p> <p>Knows who the blood donor is</p>

The BP/CR Matrix: Labor and Childbirth

POLICYMAKER	FACILITY	PROVIDER
<i>Creates an environment that supports the survival of pregnant women and newborns.</i>	<i>Is equipped, staffed and managed to provide skilled care for the pregnant woman and newborn.</i>	<i>Provides skilled care for normal and complicated pregnancies, births and the postpartum period.</i>
<p>Promotes improved care during labor and childbirth</p> <p>Ensures that skilled care policies for labor and childbirth are evidence-based, in place and politically endorsed</p> <p>Uses evidence-based information to support systems that routinely update service delivery and cadre-specific guidelines</p> <p>Promotes and facilitates the adoption of evidence-based practices</p> <p>Supports policies for management of complications based on appropriate epidemiological, financial and sociocultural data</p> <p>Ensures that adequate levels of resources (financial, material, human) are dedicated to skilled care at birth and an effective emergency referral system</p> <p>Encourages and facilitates participation in policy-making and resource allocation for safe childbirth and emergency referral services by communities, families, individuals, and advocacy groups</p> <p>Coordinates donor support for improved management of labor and childbirth</p> <p>Ensures that protocols are in place for clinical management, blood donation, anesthesia, surgical interventions, infection prevention and physical infrastructure</p> <p>Advocates birth preparedness and complication readiness through all possible venues (e.g., national campaigns, press conferences, community talks, local coalitions, supportive facilities)</p>	<p>Has essential drugs and equipment</p> <p>Follows infection prevention principles and practices</p> <p>Has appropriate space for birthing</p> <p>Has a functional emergency system, including:</p> <ul style="list-style-type: none"> • communication • transportation • safe blood supply • emergency funds <p>Has service delivery guidelines on appropriate management of labor and childbirth</p> <p>Has job aids to assist providers in performing labor and childbirth procedures</p> <p>Ensures availability of a skilled provider 24 hours a day, 7 days a week</p> <p>Is gender and culturally sensitive, client-centered and friendly</p> <p>Involves community in quality of care</p> <p>Reviews case management of maternal and neonatal morbidity and mortality</p>	<p>Provides skilled care during labor and childbirth, including:</p> <ul style="list-style-type: none"> • assessing and monitoring women during labor using the partograph • providing emotional and physical support through labor and childbirth • conducting a clean and safe delivery including active management of 3rd stage of labor • recognizing complications and providing appropriate management • informing woman and family of existence of emergency funds (if available) • referring to higher levels of care when appropriate <p>Supports the community s/he serves</p> <p>Respects community's expectations and works within that setting</p> <p>Educates community about birth preparedness and complication readiness</p> <p>Promotes concept of birth preparedness and dispels misconceptions and harmful practices that could prevent birth preparedness and complication readiness</p>

COMMUNITY	FAMILY	WOMAN
<i>Advocates and facilitates preparedness and readiness actions.</i>	<i>Supports pregnant woman's plans during pregnancy, childbirth and the postpartum period.</i>	<i>Prepares for birth, values and seeks skilled care during pregnancy, childbirth and the postpartum period.</i>
<p>Supports and values use of skilled provider at childbirth</p> <p>Supports implementing the woman's Birth Preparedness Plan</p> <p>Makes sure that the woman is not alone during labor, childbirth and immediate postpartum period</p> <p>Supports the woman in reaching place and provider of her choice</p> <p>Has a functional blood donor system</p> <p>Recognizes danger signs and supports implementing the Complication Readiness Plan</p> <p>Supports mother- and baby-friendly decision-making in case of obstetric emergencies</p> <p>Can access facility and community emergency funds</p> <p>Supports timely transportation of woman</p> <p>Promotes community norms that emphasize priority of transportation for pregnant women and obstetric emergencies</p> <p>Dialogues and works together with provider on expectations</p> <p>Supports the facility that serves the community</p> <p>Advocates for policies that support skilled healthcare</p> <p>Promotes concept of birth preparedness and dispels misconceptions and harmful practices that could prevent birth preparedness and complication readiness</p>	<p>Advocates for skilled healthcare for woman</p> <p>Recognizes normal labor and facilitates implementing Birth Preparedness Plan</p> <p>Supports woman in reaching place and provider of choice</p> <p>Supports provider and woman in reaching referral site, if needed</p> <p>Agrees with woman on decision-making process in case of obstetric emergency</p> <p>Recognizes danger signs and facilitates implementing the Complication Readiness Plan</p> <p>Discusses with and supports woman's labor and birthing decisions</p> <p>Knows transportation systems, where to go in case of emergency, and support persons to stay with family</p> <p>Knows how to access community and facility emergency funds</p> <p>Has personal savings for costs associated with emergency care or normal birth</p> <p>Purchases necessary drugs or supplies</p> <p>Knows how and when to access community blood donor system</p> <p>Identifies blood donor</p>	<p>Chooses provider and place of birth in antenatal period</p> <p>Recognizes normal labor and understands Birth Preparedness Plan</p> <p>Recognizes danger signs and understands Complication Readiness Plan</p> <p>Knows transportation systems, where to go in case of emergency, and support persons to stay with family</p> <p>Can access community and facility emergency funds</p> <p>Has personal savings and can access in case of need</p>

The BP/CR Matrix: Postpartum and Newborn

POLICYMAKER	FACILITY	PROVIDER
<i>Creates an environment that supports the survival of pregnant women and newborns.</i>	<i>Is equipped, staffed and managed to provide skilled care for the pregnant woman and newborn.</i>	<i>Provides skilled care for normal and complicated pregnancies, births and the postpartum period.</i>
<p>Promotes improved postpartum and newborn care</p> <p>Ensures that skilled postpartum and newborn care policies are evidence-based, in place and politically endorsed</p> <p>Uses evidence-based information to support systems that routinely update service delivery and cadre-specific guidelines</p> <p>Promotes and facilitates the adoption of evidence-based practices</p> <p>Supports policies for management of postpartum and newborn complications using appropriate epidemiological, financial, and sociocultural data</p> <p>Ensures adequate levels of resources (financial, material, human) are dedicated to supporting the skilled management of postpartum and newborn care and the effectiveness of an emergency referral system</p> <p>Encourages and facilitates participation in policy-making and resource allocation for safe childbirth and emergency referral services by communities, families, individuals and advocacy groups</p> <p>Coordinates donor support for improved postpartum and newborn care</p> <p>Ensures that protocols are in place for clinical management, blood donation, anesthesia, surgical interventions, infection prevention and physical infrastructure</p> <p>Advocates birth preparedness and complication readiness through all possible venues (e.g., national campaigns, press conferences, community talks, local coalitions, supportive facilities)</p>	<p>Has essential drugs and equipment</p> <p>Follows infection prevention principles and practices</p> <p>Has a functional emergency system, including:</p> <ul style="list-style-type: none"> • communication • transportation • safe blood supply • emergency funds <p>Has service delivery guidelines on care of newborn and mother postpartum</p> <p>Has job aids to assist providers in performing appropriate postpartum and newborn care</p> <p>Ensures availability of a skilled provider 24 hours a day, 7 days a week</p> <p>Is gender and culturally sensitive, client-centered and friendly</p> <p>Involves community in quality of care</p> <p>Reviews case management of maternal and neonatal morbidity and mortality</p>	<p>Provides skilled newborn and postpartum care, including:</p> <ul style="list-style-type: none"> • recognizing complications in the newborn and postpartum woman and providing appropriate management • promoting health and preventing disease in the woman, including: <ul style="list-style-type: none"> • provision of iron/folate and tetanus toxoid • vitamin A and iodine in areas of deficiencies • encouraging use of impregnated bednets for the woman and newborn in areas of malaria prevalence • provision of contraceptive counseling and services • promoting health and preventing disease in the newborn, including: <ul style="list-style-type: none"> • thermal protection • promotion of breastfeeding • eye care • cord care • vaccinations • providing appropriate counseling and education for the woman and family about danger signs and self-care for the postpartum woman and newborn • informing woman and family of existence of emergency funds • referring to higher levels of care when appropriate <p>Supports the community s/he serves</p> <p>Respects community's expectations and works within that setting</p> <p>Educates community about complication readiness</p> <p>Promotes concept of and dispels misconceptions and harmful practices that could prevent complication readiness</p>

COMMUNITY	FAMILY	WOMAN
<i>Advocates and facilitates preparedness and readiness actions.</i>	<i>Supports pregnant woman's plans during pregnancy, childbirth and the postpartum period.</i>	<i>Prepares for birth, values and seeks skilled care during pregnancy, childbirth and the postpartum period.</i>
<p>Supports and values women's use of postpartum and newborn care</p> <p>Supports and values use of skilled provider during postpartum period</p> <p>Supports appropriate and healthy norms for women and newborns during the postpartum period</p> <p>Makes sure that the woman is not alone during the postpartum period</p> <p>Recognizes danger signs and supports implementing the Complication Readiness Plan</p> <p>Supports mother- and baby-friendly decision-making in case of newborn emergencies</p> <p>Supports timely transportation of woman and newborn to referral site, if needed</p> <p>Has a functional blood donor system</p> <p>Can access facility and community emergency funds</p> <p>Dialogues and works together with provider on expectations</p> <p>Supports the facility that serves the community</p> <p>Educates community members about complication readiness</p> <p>Advocates for policies to support skilled healthcare</p> <p>Promotes concept of and dispels misconceptions and harmful practices that could prevent complication readiness</p>	<p>Advocates for skilled healthcare for woman</p> <p>Supports the woman's use of postpartum and newborn care, adjusts responsibilities to allow her attendance</p> <p>Recognizes complication signs and facilitates implementing the Complication Readiness Plan</p> <p>Agrees with woman on decision-making process in case of postpartum or newborn emergency</p> <p>Knows transportation systems, where to go in case of emergency, and support persons to stay with family</p> <p>Supports provider, woman and newborn in reaching referral site, if needed</p> <p>Knows how to access community and facility emergency funds</p> <p>Has personal savings for costs associated with postpartum and newborn care</p> <p>Purchases drugs or supplies needed for normal or emergency postpartum and newborn care</p> <p>Knows how and when to access community blood donor system</p> <p>Identifies blood donor</p>	<p>Seeks postpartum and newborn care at least twice—at 6 days and at 6 weeks postpartum (obtains money, transport)</p> <p>Recognizes danger signs and implements the Complication Readiness Plan</p> <p>Speaks out and acts on behalf of her and her child's health, safety and survival</p> <p>Knows transportation systems, where to go in case of emergency, and support persons to stay with family</p> <p>Can access community and facility emergency funds</p> <p>Has personal savings and can access in case of need</p>

